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ABSTRACT

This document contains 20 competency-based examinations with student and instructor manuals for drafting-related occupations. For each of the examinations, the student manual contains the following: the competency, the performance objective, directions, the facility to be used, the materials needed, a space to note time started and time finished, and the competency examination, which consists of tasks to perform. The instructor's manual includes the same materials as the student manual, with specific instructions to the examiner and a competency examination rating sheet. The 20 examinations cover the following material: (1) performing disk operating systems commands that are common to AutoCAD (computer-assisted design); (2) using the line modes in the AutoCAD drawing editor; (3) using the OSNAP feature of AutoCAD in producing a drawing file; (4) revision of an AutoCAD drawing file; (5) modifying an AutoCAD drawing file; (6) creating a prototype drawing for AutoCAD; (7) creating notes and specifications in AutoCAD; (8) using previously created drawing entities in AutoCAD; (9) creating and using a symbol library in AutoCAD; (10) using AutoCAD dimensioning capabilities; (11) file utilities within AutoCAD; (12) setting up input formats that govern the display of distances, coordinates, and angles (units); (13) establishing drawing limits; (14) establishing and manipulating drawing layers; (15) point entity display mode; (16) point entity display size; (17) determining scale factors; (18) establishing and manipulating viewpoints; (19) converting model space to paperspace; and (20) creating a 3D wireframe drawing and adding 3D faces. (KC)

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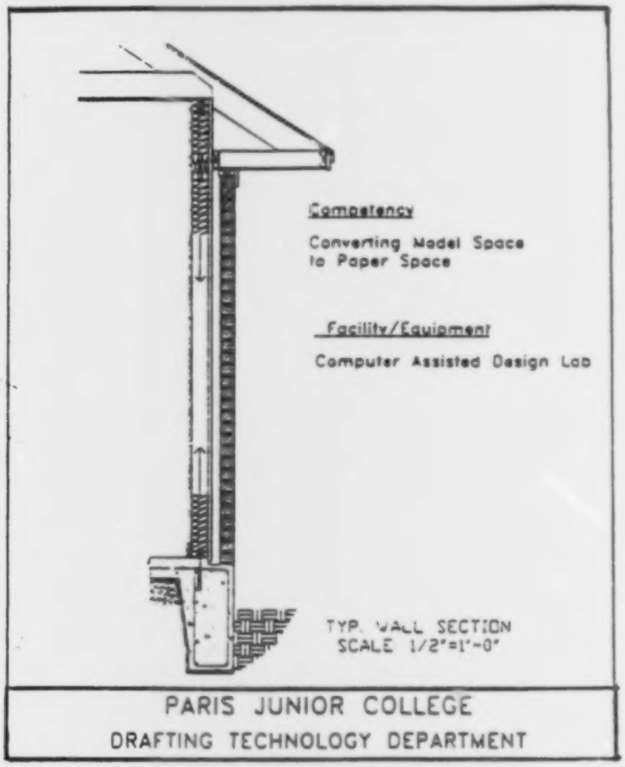
COMPETENCY EXAMS

STUDENT AND INSTRUCTOR MANUALS


Competency
Converting Model Space to Paper Space
Facility/Equipment
Computer Assisted Design Lab
TYP. WALL SECTION
SCALE 1/2"=1'-0"
PARIS JUNIOR COLLEGE
DRAFTING TECHNOLOGY DEPARTMENT

DRAFTING - RELATED OCCUPATIONS

JUNE, 1993

CE 065 631

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Competency Exams
for
Drafting - Related Occupations

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For

Texas Higher Education Coordinating Board
Community and Technical Colleges Division

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STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

PERFORMING DISK OPERATING SYSTEMS COMMANDS (DOS) THAT ARE COMMON TO AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #1

Competency: Performing Disk Operating Systems Commands (DOS) that are Common to AutoCAD.

Performance Objective: The student will boot up the computer system and perform the make directory, copy, directory, delete, and rename (DOS) Commands. Achieving 100% mastery on the performance exam.

1) The maximum time allowed for this exam is 30 minutes.
2) The performance examination consists of twelve (12) tasks.
3) For each task you will be evaluated on your ability to perform the skills necessary to master the competency.
4) Upon completion of the performance examination, return the work station to its pre-examination condition.
5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with DOS 3.3 or later release
Blank 5-1/4" or 3-1/2" High Density diskette
DOS Reference Manual

Time started:________
Time finished:________

COMPETENCY EXAMINATION

PERFORMING DISK OPERATING SYSTEMS COMMANDS (DOS) THAT ARE COMMON TO AUTOCAD

PERFORMANCE EXAM:

TASK 1 From the DOS prompt, perform the tasks.

TASK 2 Make a directory, DWG.

TASK 3 From the diskette provided by the examiner, COPY the files HOUSE.DWG and ELEV.DWG to the DWG directory.

TASK 4 Perform the DIR command and make sure the files were copied. Call the examiner before proceeding.

TASK 5 DELETE the file HOUSE.DWG from the diskette.

TASK 6 Perform the DIR command to make sure the file was deleted from the diskette. Call the examiner before proceeding.

TASK 7 RENAME the file, ELEV.DWG to CABIN.DWG.

TASK 8 Create another directory, STOR

TASK 9 COPY the file CABIN.DWG from the DWG directory to the STOR directory.

TASK 10 Check the STOR directory to make sure the copy was completed. Call the examiner before proceeding.

TASK 11 COPY the renamed file to the diskette.

TASK 12 Check the directory of the diskette. Call the examiner before proceeding.

TASK 13 Secure the work station.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

PERFORMING DISK OPERATING SYSTEMS COMMANDS (DOS) THAT ARE COMMON TO AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE EXAMINER

PERFORMANCE EXAMINATION #1

Competency: Performing Disk Operating Systems Commands (DOS) that are Common to AutoCAD.

Performance Objective: The student will boot up the computer system and perform the make directory, copy, directory, delete, and rename (DOS) commands, achieving 100% mastery on the performance exam.

1) The maximum time allowed for this exam is 30 minutes.
2) There are twelve tasks that the student must complete.
3) Examiner is to be assured that each student has the diskette that contains the files, HOUSE.DWG and ELEV.DWG. Each student should have a copy of the reference for DOS.
4) The examiner will clarify any questions before the examination begins.
5) Rate and record individual student performance as the examination progresses on the competency exam rating sheet.
6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.
7) Assure that all workstations are secured.

Facility:

Computer Assisted Design laboratory

Materials Needed:

A Micro-computer station with DOS 3.3 or later release
Blank 5-1/4" or 3-1/2" high density diskette
DOS Reference Manual

Time started:________
Time finished:________

COMPETENCY EXAMINATION

PERFORMING DISK OPERATING SYSTEMS COMMANDS (DOS) THAT ARE COMMON TO AUTOCAD

PERFORMANCE EXAM:

TASK 1 From the DOS prompt, perform the tasks.

TASK 2 Make a directory, DWG.

TASK 3 From the diskette provided by the examiner, COPY the files HOUSE.DWG and ELEV.DWG to the DWG directory.

TASK 4 Perform the DIR command and make sure the files were copied. Call the examiner before proceeding.

TASK 5 DELETE the file HOUSE.DWG from the diskette.

TASK 6 Perform the DIR command to make sure the file was deleted from the diskette. Call the examiner before proceeding.

TASK 7 RENAME the file, ELEV.DWG to CABIN.DWG.

TASK 8 Create another directory, STOR

TASK 9 COPY the file CABIN.DWG from the DWG directory to the STOR directory.

TASK 10 Check the STOR directory to make sure the copy was completed. Call the examiner before proceeding.

TASK 11 COPY the renamed file to the diskette.

TASK 12 Check the directory of the diskette. Call the examiner before proceeding.

TASK 13 Secure the work station.

COMPETENCY EXAMINATION RATING SHEET

Competency: Performing Disk Operating Systems Commands (DOS) that are Common to AutoCAD.

Performance Objective: The student will boot up the computer system and perform the make directory, copy, directory, delete, and rename (DOS) commands, achieving 100% mastery on the performance exam.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Make a directory DWG.			
2. Copies two files from a diskette to the directory DWG.			
3. Performed the DIR command to check that files were copied.			
4. Deleted a file from the directory DWG.			
5. Performed the DIR command to check that files were deleted.			
6. Initiated the RENAME command.			
7. Make a directory STOR.			
8. Copied from one directory to another directory.			
9. Copied the file ELEV.DWG from the hard drive to the diskette.			
10. Checked the directory of the diskette.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Secured the machine to pre-examination condition.			
12. Performed competency within the allocated time limit.			
13. Demonstrated problem solving abilities.			
14. Used equipment correctly.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING THE LINE MODES IN THE AUTOCAD DRAWING EDITOR

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE STUDENT

PERFORMANCE EXAMINATION #2

Competency: Using the Line Modes in the AutoCAD Drawing Editor.

Performance Objective: The student will enter the AutoCad Drawing Editor and create a drawing utilizing absolute positioning, relative, ad polar line generation. Achieving 100% mastery on the performance exam.

1) The maximum time allowed for the examination is one hour.

2) There are six tasks that the student must complete.

3) The examiner is to be assured that each student has a copy of the test booklet, blank diskette and an AutoCAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) The students performance will be rated as the examination progresses.

6) Upon completion of the examination collect exam booklets, diskettes, and reference materials and return to the appropriate administrator. Score and return the examination rating sheet.

Facility:

Computer Assisted Design laboratory.

Equipment, Material and Tools:

For this performance examination a computer workstation with AutoCAD release 10 or later is necessary. The student will need a blank high density 5-1/4" or 3-1/2" diskette.

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

USING THE LINE MODES IN THE AUTOCAD DRAWING EDITOR

PERFORMANCE EXAM:

1) One hour will be the maximum time allowed to complete this performance examination.

2) This performance examination consists of six (6) tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary for completion of the task.

4) Upon completion of the performance examination, return the work station to its pre-examination status.

5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the area.

From the DOS prompt.

TASK 1 Enter the AutoCAD Drawing Editor and begin a new drawing XXper2 (In place of the XX use your first and last initial) It is not necessary to set units or limits, do not dimension the drawing.

TASK 2 Begin the drawing at absolute position 1.5,2.5. The rough sketch is not to scale.

TASK 3 Utilizing the relative and polar methods of line generation create the drawing.

TASK 4 After you have completed the drawing save the file to the hard drive.

TASK 5 Create a back-up file on the hard drive. Before proceeding call the examiner.

TASK 6 Save the file to the blank diskette.

TASK 7 Secure the work station.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING THE LINE MODES IN THE AUTOCAD DRAWING EDITOR

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #2

Competency: Using the Line Modes in the AutoCAD Drawing Editor.

Performance Objective: The student will enter the AutoCad Drawing Editor and create a drawing utilizing absolute positioning, relative, ad polar line generation, achieving 100% mastery on the performance exam.

1) The maximum time allowed for the examination is one hour.

2) There are six tasks that the student must complete.

3) The examiner is to be assured that each student has a copy of the test booklet, blank diskette and an Auto CAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) The students performance will be rated as the examination progresses.

6) Upon completion of the examination collect exam booklets, diskettes, and reference materials and return to the appropriate administrator. Score and return the examination rating sheet.

Facility:

Computer Assisted Design Laboratory.

Equipment, Material and Tools:

For this performance examination a computer workstation with AutoCAD release 10 or later is necessary. The student will need a blank high density 5-1/4" or 3-1/2" diskette.

Time started: _________
Time finished: _________

COMPETENCY EXAMINATION

USING THE LINE MODES IN THE AUTOCAD DRAWING EDITOR

PERFORMANCE EXAM:

1) One hour will be the maximum time allowed to complete this performance examination.

2) This performance examination consists of six (6) tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary for completion of the task.

4) Upon completion of the performance examination, return the work station to its pre-examination status.

5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the area.

From the DOS prompt.

TASK 1 Enter the AutoCAD Drawing Editor and begin a new drawing XXper2 (In place of the XX use your first and last initial) It is not necessary to set units or limits, do not dimension the drawing.

TASK 2 Begin the drawing at absolute position 1.5,2.5. The rough sketch is not to scale.

TASK 3 Utilizing the relative and polar methods of line generation create the drawing.

TASK 4 After you have completed the drawing save the file to the hard drive.

TASK 5 Create a back-up file on the hard drive. Before proceeding call the examiner.

TASK 6 Save the file to the blank diskette.

TASK 7 Secure the work station.

COMPETENCY EXAMINATION RATING SHEET

Competency: Using the Line Modes in the AutoCAD Drawing Editor.

Performance Objective: The student will enter the AutoCAD Drawing Editor and create a drawing utilizing absolute positioning, relative, ad polar line generation, achieving 100% mastery on the performance exam.

STUDENT ______________________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Student entered the Drawing Editor.			
2. Created a new drawing file.			
3. Placed drawing in the correct location.			
4. Generated lines by the relative method.			
5. Generated lines by the polar method.			
6. Demonstrated ability to attach lines to each other OSNAP.			
7. Saved the file to a diskette.			
8. Created a back-up file on the hard drive.			
9. Saved the file to a diskette.			
10. Secured the machine.			
11. Performed the competency within the allocated time.			
12. Demonstrated problem solving capabilities.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING THE OSNAP FEATURE OF AUTOCAD IN PRODUCING A DRAWING FILE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #3

Competency: Using the OSNAP Feature of AutoCAD in Producing a Drawing File.

Performance Objective: The student will produce a drawing utilizing the OSNAP features of AutoCAD, achieving 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 30 minutes.

2) The performance examination consists of six tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary to master the competency.

4) Upon completion of the performance examination, return the work station to its pre-examination condition.

5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials\Equipment Needed:

A micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started:______
Time finished:______

COMPETENCY EXAMINATION

PRODUCING A DRAWING USING THE AUTOCAD OSNAP FEATURES

PERFORMANCE EXAM:

Instructions to Student: From the diskette copy the file PERT3.DWG to your assigned user number. Get into the drawing editor and perform the operations listed below. When completed, save the edited file to the diskette. Save the file as your first initial, last initial P3.DWG.

TASK 1 Draw a line that connects the circles A and B from their centers.

TASK 2 Construct a line that is tangent to circles A and B (at the bottom).

TASK 3 From the right quadrant of circle B draw a polar line that is 45^0 from the standard 0^0 position of AutoCAD and is 1.125 inches long.

TASK 4 Construct a line from the end point of the polar line to the point at C.

TASK 5 From the mid-point of the polar line construct a line to the intersection of line 1-2 and 3-4.

TASK 6 From point D construct a line perpendicular to the tangent between CIRCLE A and B.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING THE OSNAP FEATURE OF AUTOCAD IN PRODUCING A DRAWING FILE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE EXAMINER

PERFORMANCE EXAMINATION #3

Competency: Using the OSNAP Feature of AutoCAD in Producing a Drawing File.

Performance Objective: The student will produce a drawing utilizing the OSNAP features of AutoCAD, achieving 100% mastery on the competency is required.

1) The maximum allowed time for this exam is 30 minutes.

2) There are six tasks that the student must complete.

3) Examiner will supply the student with a diskette that contains the file PERT3. DWG. Each student should have access to the AutoCAD Reference Manual.

4) The examiner will clarify any question before the examination begins.

5) Rate and record individual student performance as the examination progresses on the competency exam rating sheet.

6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual.

Time started:_______
Time finished: _______

COMPETENCY EXAMINATION

PRODUCING A DRAWING USING THE AUTOCAD OSNAP FEATURES

PERFORMANCE EXAM:

Instructions to Student: From the diskette copy the file PERT3.DWG to your assigned user number. Get into the drawing editor and perform the operations listed below. When completed, save the edited file to the diskette. Save the file as your first initial, last initial P3.DWG.

TASK 1 Draw a line that connects the circles A and B from their centers.

TASK 2 Construct a line that is tangent to circles A and B (at the bottom).

TASK 3 From the right quadrant of circle B draw a polar line that is 45^0 from the standard 0^0 position of AutoCAD and is 1.125 inches long.

TASK 4 Construct a line from the end point of the polar line to the point at C.

TASK 5 From the mid-point of the polar line construct a line to the intersection of line 1-2 and 3-4.

TASK 6 From point D construct a line perpendicular to the tangent between CIRCLE A and B.

COMPETENCY EXAMINATION RATING SHEET

Competency: Using the OSNAP Feature of AutoCAD in Producing a Drawing File.

Performance Objective: The student will produce a drawing utilizing the OSNAP features of AutoCAD, achieving 100% mastery on the competency is required.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Drew a line from the center of CIRCLE A to the center of CIRCLE B using the CENTER OSNAP mode.			
2. Constructed a line using the TANgent OSNAP mode.			
3. Attached to the proper quadrant using the QUAdrant OSNAP mode and construct a polar line in the proper direction and correct length.			
4. Attached of the polar line using the END point OSNAP mode and draw a line to the POINT C using the NODe OSNAP mode.			
5. Attached to the mid-point of the polar line using the MIDpoint OSNAP mode and construct a line to the intersection of lines 1-2 and 3-4 using the INTersec OSNAP mode.			
6. Constructed a line from point C using the MODe OSNAP mode perpendicular to the tangent line using the PERpond OSNAP mode.			
7. Saved the file with correct file identifier to the diskette.			
8. Demonstrated problem solving abilities.			
9. Performed competency within the allotted time limit.			
10. Secured the equipment to pre-examination condition.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Used equipment correctly.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

REVISION OF AN AUTOCAD DRAWING FILE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #4

Competency: Revision of an AutoCAD Drawing File.

Performance Objective: The student will revise a drawing file using the AutoCAD COPY, CHANGE, MOVE ROTATE, OFFSET, CIRCLE, DISTANCE and MIRROR commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 45 minutes.
2) The performance examination consists of eight tasks.
3) For each task you will be evaluated on your ability to perform the skills necessary to mastery the competency.
4) Upon completion of the performance examination, return the work station to its pre-examination condition.
5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" High Density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

REVISION OF AN AUTOCAD DRAWING FILE

PERFORMANCE EXAM:

Instructions to Student:	From the diskette COPY the file PERT4.DWG to your user number. Get into the drawing editor and perform the commands listed below. When completed, SAVE the editor file to the diskette. Use your initials, (first-last) and PERT4.

TASK 1 COPY the circle on the left and put the copy in the center of the square to the right.

TASK 2 CHANGE the color of the lines of the square in question #1 to blue.

TASK 3 MOVE the triangle below the square into the center of the circle in the square. CALL EXAMINER BEFORE PROCEEDING.

TASK 4 ROTATE the triangle in the square in question #3 180°.

TASK 5 OFFSET ALL of the lines of the square 0.10 to the outside.

TASK 6 DRAW a 1.11 diameter circle centered in square B.

TASK 7 DISTANCE measure and record below the length of a side of square B, question #6 ______________.

TASK 8 MIRROR the square B and circle to the right.
Retain the original object.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

REVISION OF AN AUTOCAD DRAWING FILE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #4

Competency: Revision of an AutoCAD Drawing File.

Performance Objective: The student will revise a drawing file using the AutoCAD COPY, CHANGE, MOVE ROTATE, OFFSET, CIRCLE, DISTANCE and MIRROR commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for completion of the examination is 45 minutes.

2) There are eight tasks that the student must complete.

3) The examiner will provide the student with a diskette containing the file PERT4. DWG. Each student should have access to the AutoCAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) Rate and record individual student performance as the examination progresses on the competency exam rating sheet.

6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A microcomputer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette
AutoCAD Reference Manual

Time started: ______
Time finished: ______

COMPETENCY EXAMINATION

REVISION OF AN AUTOCAD DRAWING FILE

PERFORMANCE EXAM:

Instructions to Student: From the diskette COPY the file PERT4.DWG to your user number. Get into the drawing editor and perform the commands listed below. When completed, SAVE the editor file to the diskette. Use your initials, (first-last) and PERT4.

TASK 1 COPY the circle on the left and put the copy in the center of the square to the right.

TASK 2 CHANGE the color of the lines of the square in question #1 to blue.

TASK 3 MOVE the triangle below the square into the center of the circle in the square. CALL EXAMINER BEFORE PROCEEDING.

TASK 4 ROTATE the triangle in the square in question #3 180°.

TASK 5 OFFSET ALL of the lines of the square 0.10 to the outside.

TASK 6 DRAW a 1.11 diameter circle centered in square B.

TASK 7 DISTANCE measure and record below the length of a side of square B, question #6 ______________.

TASK 8 MIRROR the square B and circle to the right.
Retain the original object.

COMPETENCY EXAMINATION RATING SHEET

Competency: Revision of an AutoCAD Drawing File.

Performance Objective: The student will revise a drawing file using the AutoCAD COPY, CHANGE, MOVE ROTATE, OFFSET, CIRCLE, DISTANCE and MIRROR commands, achieving 100% mastery on the competency is required.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. COPIED the object to the appropriate location.			
2. CHANGED the color of a series of lines.			
3. MOVED the object to the correct location per instructions.			
4. ROTATED the object 180^{0}.			
5. OFFSET the line the proper distance and direction. * HIGHER ORDER did the student connect the lines after offsetting?			
6. Located the CIRCLE in the center of the square. Draw the proper diameter CIRCLE. * HIGHER ORDER what method did the student use to locate the circle? Increment _____ Point _____ Perpendiculars _____ Point _____.			
7. DISTANCE was measured correctly.			
8. The object was MIRRORED to the proper location.			
9. Performed ALL the prerequisite skills necessary to complete this examination.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
10. Performed the competency within the allocated time limit.			
11. Demonstrated problem solving abilities.			
12. Used equipment correctly.			
13. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

MODIFYING AN AUTOCAD DRAWING FILE

DRAFTING--RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #5

Competency: Modifying an AutoCAD Drawing File.

Performance Objective: The student will modify a drawing file using the STRETCH, TRIM, EXTEND, ROTATE and SCALE commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 30 minutes.
2) The performance examination consists of seven tasks.
3) For each task you will be evaluated on your ability to perform the skills necessary for mastery of the competency.
4) Upon completion of the performance examination, return the work station to its pre-examination condition.
5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

MODIFICATION OF AN AUTOCAD DRAWING FILE

PERFORMANCE EXAM:

Instructions to Student: From the diskette COPY the file PERT5.DWG to your user number or directory. Get in the drawing editor call up the file PERT5.DWG and perform the modification listed below. When completed, SAVE the edited file to the diskette. Use your initials, (first-last) and PERT5.

TASK 1 STRETCH wing A on the drawing to units to the right.

TASK 2 TRIM the corners of Wing B. Call The Examiner use the fillet 0 for this operation.

TASK 3 EXTEND the walkway from wing A to the property line.

TASK 4 TRIM out the inside lines where the two walkways intersect.

TASK 5 SCALE the drawing to 0.5 of the original size.

TASK 6 ROTATE the entire drawing 90^0 from Zero (0) using point "C" as the point to rotate about.

TASK 7 TEXT using the simplex STYLE and txt font put name in 0.25 inch CAPITAL letters on the bottom of the drawing.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

MODIFYING AN AUTOCAD DRAWING FILE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #5

Competency: Modifying an AutoCAD Drawing File.

Performance Objective: The student will modify a drawing file using the STRETCH, TRIM, EXTEND, SCALE, ROTATE, and TEXT commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for completion of the examination is 30 minutes.
2) There are seven tasks that the student must complete.
3) The examiner will provide the student with a diskette containing the file PERT5. DWG. Each student should have access to the AutoCAD reference manual.
4) The examiner will clarify any questions before the examination begins.
5) Rate and record individual student performance as the examination progresses. The examiner will use the competency exam rating sheet.
6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.
7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A microcomputer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette
AutoCAD Reference Manual

Time started: ______
Time finished: _____

COMPETENCY EXAMINATION

MODIFICATION OF AN AUTOCAD DRAWING FILE

PERFORMANCE EXAM:

Instructions to Student:	From the diskette COPY the file PERT5.DWG to your user number or directory. Get in the drawing editor call up the file PERT5.DWG and perform the modification listed below. When completed, SAVE the edited file to the diskette. Use your initials, (first-last) and PERT5.

TASK 1	STRETCH wing A on the drawing to units to the right.
TASK 2	TRIM the corners of Wing B. Call The Examiner use the fillet 0 for this operation.
TASK 3	EXTEND the walkway from wing A to the property line.
TASK 4	TRIM out the inside lines where the two walkways intersect.
TASK 5	SCALE the drawing to 0.5 of the original size.
TASK 6	ROTATE the entire drawing 90^0 from Zero (0) using point "C" as the point to rotate about.
TASK 7	TEXT using the simplex STYLE and txt font put name in 0.25 inch CAPITAL letters on the bottom of the drawing.

COMPETENCY EXAMINATION RATING SHEET

Competency: Modifying an AutoCAD Drawing File.

Performance Objective: The student will modify a drawing file using the STRETCH, TRIM, EXTEND, ROTATE and SCALE commands, achieving 100% mastery on the competency is required.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Performed the STRETCH command.			
2. Trimmed the corners of wing B using the fillet 0 command.			
3. Executed the EXTEND command.			
4. Trimmed at the intersection of the walkways using the TRIM command.			
5. SCALED the drawing to 0.5 of original size.			
6. ROTATED the drawing about point "C".			
7. Applied the specified TEXT and STYLE with required text height.			
8. Performed all prerequisite skills necessary to complete the examination.			
9. Performed the competency in the allocated time limit.			
10. Demonstrated problem solving abilities.			
11. Used equipment correctly.			
12. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING A PROTO TYPE DRAWING FOR AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE STUDENT

PERFORMANCE EXAMINATION #6

Competency: Creating a Prototype Drawing for AutoCAD.

Performance Objective: The student will create a prototype drawing using the UNITS, LIMITS, GRID, SNAP, LTSCALE LAYER (Dialogue Box) and STATUS commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 30 minutes.

2) The performance examination consists of eight tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary for mastery of the competency.

4) Upon completion of the performance examination the student will return the work station to the pre-examination condition.

5) This exam booklet, reference material, and diskette with the file, PERFT6, that the student created will be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

CREATING A PROTO TYPE DRAWING FOR AUTOCAD

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor and create a new drawing PERT6. This will be a prototype that can be used with all architectural drawings.

TASK 2 Set the UNITS for the drawing on architectural.

TASK 3 Set the LIMITS at 144’ and 96’ (This will allow a plot scale of 1/4" = 1’-0" or 1"=48".

TASK 4 Set the GRID at 1’-0" and SNAP at 1’-0".

TASK 5 Enter the STATUS command and review your work. CALL THE EXAMINER BEFORE PROCEEDING SAVE WORK BEFORE PROCEEDING.

TASK 6 Create the following LAYERS for the drawing:

Layer Name	Color	Linetype
0	White	Continuous
OBJ	Red	Continuous
HID	Yellow	Hidden
DIM	Green	Continuous

TASK 7 Set the LTSCALE (Linetype) set at 1/2 the reciprocal of the plot scale.

TASK 8 FREEZE the layers HID and DIM, make the layer OBJ current. CALL THE EXAMINER BEFORE PROCEEDING.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING A PROTO TYPE DRAWING FOR AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE EXAMINER

PERFORMANCE EXAMINATION #6

Competency:	Creating a Prototype Drawing for AutoCAD.
Performance Objective:	The student will create a prototype drawing using the UNITS, LIMITS, GRID, SNAP, LTSCALE LAYER (Dialogue Box) and STATUS commands, achieving 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 30 minutes.

2) The student will be required to complete eight tasks.

3) The examiner will provide the student with a blank diskette. Each student should access to the AutoCAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) The examiner will evaluate and record student performance on the competency examination rating sheet as the examination is in progress.

6) Upon completion of the examination, collect from the student, test booklets, diskettes, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

CREATING A PROTO TYPE DRAWING FOR AUTOCAD

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor and create a new drawing PERT6. This will be a prototype that can be used with all architectural drawing.

TASK 2 Set the UNITS for the drawing on architectural.

TASK 3 Set the LIMITS at 144' and 96' (This will allow a plot scale of 1/4" = 1'-0" or 1"=48".

TASK 4 Set the GRID at 1'-0" and SNAP at 1'-0".

TASK 5 Enter the STATUS command and review your work. CALL THE EXAMINER BEFORE PRECEDING SAVE WORK BEFORE PROCEEDING.

TASK 6 Create the following LAYERS for the drawing:

Layer Name	Color	Linetype
0	White	Continuous
OBJ	Red	Continuous
HID	Yellow	Hidden
DIM	Green	Continuous

TASK 7 Set the LTSCALE (Linetype) set at 1/2 the reciprocal of the plot scale.

TASK 8 FREEZE the layers HID and DIM, make the layer OBJ current. CALL THE EXAMINER BEFORE PROCEEDING.

COMPETENCY EXAMINATION RATING SHEET

Competency: Creating a Prototype Drawing for AutoCAD.

Performance Objective: The student will create a prototype drawing using the UNITS, LIMITS, GRID, SNAP, LTSCALE LAYER (Dialogue Box) and STATUS commands, achieving 100% mastery on the competency is required.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. UNITS for the drawing were set for architectural.			
2. LIMITS for the drawing were set at 0:0" and 144', 96'.			
3. The GRID was set appropriately.			
4. The SNAP was set as specified.			
5. The STATUS command was used to review the previous commands and their settings.			
6. LAYERS were created with the proper name, color and linetype.			
7. LTSCALE was set at 1/2 the reciprocal of the plot scale (24).			
8. The Freeze and make current layer commands were made.			
9. Performed All the prerequisite skills necessary to complete this examination.			
10. Performed the competency within the allocated time limit.			
11. Demonstrated problem solving abilities.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
12. Used equipment correctly.			
13. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING NOTES AND SPECIFICATIONS IN AUTOCAD

DRAFTING--RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE STUDENT

PERFORMANCE EXAMINATION #7

Competency: Creating Notes and Specifications in AutoCAD.

Performance Objective: The student will create notes and specifications using the STYLE, BTEXT, QTEXT, CHANGE and special characters and control codes, achieving a 100% mastery on the competency is required.

1) The maximum time allowed for this exam is 30 minutes.

2) The performance examination consists of nine tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary to mastery the competency.

4) Upon completion of the performance examination return the work station to the pre-examination condition.

5) This exam booklet, reference material, and diskette with the file you created must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

CREATING NOTES AND SPECIFICATIONS IN AUTOCAD

PERFORMANCE EXAM:

Instructions: From the diskette COPY the file PERT7.DWG to your user number or directory. When completed SAVE your file to the diskette. Use your initials, (first-last) and PERT7 for the filename. Example HDPERT 7.

TASK 1 Enter the STYLE command and reply to the prompts as follows:

Text style name COMP1
Font file: COMPLEX
Height 0 (not fixed, set each time at TEXT command).

Leave other prompts as is.

TASK 2 Enter the TEXT command, and start the TEXT near Point A. The text height is to be 0.20.

Text: NAME Text in Capital Letters
ADDRESS
CITY, STATE
ZIP CODE

TASK 3 Enter the TEXT command, and the M option to place the following text, DESIGN and DRAFTING at point B. The text height is 0.125 and rotated 45^0.

Call examiner before proceeding.

TASK 4 Using the special characters and control codes enter the following text at point C. Height of text is 0.125.

THE LINE IS AT 45^0 ANGLE
AND REPRESENTS 50% OF THE DISTANCE

TASK 5 Enter the DTEXT command and place the following text at point D. The height is 0.094.

This is a timed performance test of your skills in the use of the STYLE, TEXT, DTEXT, QTEXT and the special characters and control codes.

TASK 6 Access the QTEXT command and specify ON. Enter the following text at point E. Text height is 0.15.

WHAT HAPPENED TO THE TEXT

At this point call the examiner and toggle the blank box to the text.

TASK 7 CHANGE the text, CHANGE ME, to a height of 0.50.

TASK 8 FREEZE the LAYER, points.

TASK 9 Use the right justify mode to place your name to the left of NAME on the drawing editor.

Call the examiner before exiting the drawing editor.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING NOTES AND SPECIFICATIONS IN AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE EXAMINER

PERFORMANCE EXAMINATION #7

Competency: Creating Notes and Specifications in AutoCAD.

Performance Objective: The student will create notes and specifications using the STYLE, TEXT, BTEXT, QTEXT, CHANGE and special character and control codes, achieving 100% mastery on the competency is required.

1) The maximum time allowed for completion of the examination is 30 minutes.

2) There are nine tasks that the student must complete.

3) The examiner will provide the student with a diskette containing the file PERT7.DWG. Each student should have access to the AutoCAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) The examiner will evaluate and record individual student performance as the examination progresses on the competency examination rating sheet.

6) Upon completion of the examination, collect test booklets, diskette with file completed by the student, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

CREATING NOTES AND SPECIFICATIONS IN AUTOCAD

PERFORMANCE EXAM:

Instructions: From the diskette COPY the file PERT7.DWG to your user number or directory. When completed SAVE your file to the diskette. Use your initials, (first-last) and PERT7 for the filename. Example HDPERT 7.

TASK 1 Enter the STYLE command and reply to the prompts as follows:

Text style name COMP1
Font file: COMPLEX
Height 0 (not fixed, set each time at (TEXT) command.

Leave other prompts as is.

TASK 2 Enter the TEXT command, and start the TEXT near point A. The text height is to be 0.20.

Text: NAME Text in Capital Letters
ADDRESS
CITY, STATE
ZIP CODE

TASK 3 Enter the TEXT command, and the M option to place the following text, DESIGN and DRAFTING at point B. The text height is 0.125 and rotated 45_0.

Call examiner before proceeding.

TASK 4 Using the special characters and control codes enter the following text at point C. Height of text is 0.125.

THE LINE IS AT 45_0 ANGLE
AND REPRESENTS 50% OF THE DISTANCE

TASK 5 Enter the DTEXT command and place the following text at point D. The height is 0.094.

This is a timed performance test of your skills in the use of the STYLE, TEXT, DTEXT, QTEXT and the special characters and control codes.

TASK 6 Access the QTEXT command and specify ON. Enter the following text at point E. Text height is 0.15.

WHAT HAPPENED TO THE TEXT

At this point call the examiner and toggle the blank box to the text.

TASK 7 CHANGE the text, CHANGE ME, to a height of 0.50.

TASK 8 FREEZE the LAYER, point.

TASK 9 Use the right justify mode to place your name to the left of NAME on the drawing editor.

Call the examiner before exiting the drawing editor.

COMPETENCY EXAMINATION RATING SHEET

Competency: Creating Notes and Specifications in AutoCAD.

Performance Objective: The student will create notes and specifications using the STYLE, DTEXT, QTEXT, CHANGE and special characters and control codes, achieving a 100% mastery on the competency is required.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Entered the STYLE command and set the prompts as directed.			
2. Used the TEXT command with the start point option.			
3. Place TEXT in a specified location with the specified height and rotation using the M option.			
4. Used the special characters and control codes to enter a given test at a specified height.			
5. Entered the DTEXT command and placed a given text with a specified height in the proper location.			
6. Located a text using the QTEXT command. Set proper height.			
7. Was able to toggle the QTEXT to the off position making the text visible.			
8. Changed the height of a given text.			
9. Was able to freeze the layer points.			
10. Used the right justify mode to place name in the specified location.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Performed All the prerequisite skills necessary to complete this examinations.			
12. Performed the competency within the allocated time limit.			
13. Demonstrated problem solving abilities.			
14. Used equipment correctly.			
15. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING PREVIOUSLY CREATED DRAWING ENTITIES IN AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #8

Competency: Using Previously Created Drawing Entities in AutoCAD.

Performance Objective: The student will use the BLOCK, INSERT, MINSERT, EXPLODE and WBLOCK to create, store, use the symbols, drawings and details that are frequently used to generate a drawing file in AutoCAD, achieving 100% mastery on the performance exam.

1) The maximum time allowed for this exam is 30 minutes.
2) The performance exam consists of nine tasks.
3) For each task you will be evaluated on your ability to perform the skills necessary for mastery of the competency.
4) Upon completion of the performance examination, return the work station to its pre-examination condition.
5) This exam test booklet, reference material, and diskette must be returned to the examiner before leaving the exam area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

USING PREVIOUSLY CREATED DRAWING ENTITIES IN AUTOCAD

PERFORMANCE EXAM:

Instructions to Student: Enter the AutoCAD drawing editor and create a drawing file PERT8. Use the default prototype for AutoCAD. At the end of the exam save the file to the diskette provide by the examiner.

TASK 1	Generate a 2.00 diameter square and locate a 1.50 diameter circle in the center of the square. The square is to be in LAYER SQ and be in color red. The circle is to be in LAYER CIR and be in color green.
TASK 2	Combine the entities circle and square into a BLOCK named CIRSQ. The insertion point for the block will be at its center.
TASK 3	Call the examiner and insert the BLOCK CIRSQ at 5,4. Specify the scale at .5 and rotate the BLOCK 45 degrees clockwise.
TASK 4	Use the MINSERT to insert the BLOCK CIRSQ at 9,2 - 9,4 and 9,6. Specify the scale at .25.
TASK 5	ERASE the circle from the block you inserted at 5,4.
TASK 6	Create a WBLOCK called SQR from the block at 5,4. Be sure that the drawing remains at 5,4 after you have created the WBLOCK. Call the examiner. Check the drawing FILES to assure that the WBLOCK was created.
TASK 7	INSERT the drawing file BORDER at 0,0 keep the scale at 1.
TASK 8	Complete the title block on the border drawing as follows: SCALE: 1/1 (Text Height .125) NAME: Your initials and surname (TEXT HEIGHT.15)
TASK 9	Save the file to the diskette.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING PREVIOUSLY CREATED DRAWING ENTITIES IN AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #8

Competency: Using Previously Created Drawing Entities in AutoCAD.

Performance Objective: The student will use the BLOCK, INSERT, MINSERT, EXPLODE and WBLOCK to create, store, use the symbols, drawings and details that are frequently used to generate a drawing file in AutoCAD, achieving 100% mastery on the performance exam.

1) The maximum time allowed for completion of the exam is 30 minutes.

2) There are nine tasks that the student must complete.

3) The examiner will provide the student with a blank diskette. Each student should have access to the AutoCAD reference manual.

4) The examiner will clarify any questions before the examination begins.

5) Rate and record individual student performance as the examination progresses on the competency exam rating sheet.

6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A microcomputer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette
AutoCAD Reference Manual

Time started: ______
Time finished: ______

COMPETENCY EXAMINATION

USING PREVIOUSLY CREATED DRAWING ENTITIES IN AUTOCAD

PERFORMANCE EXAM:

Instructions to Student: Enter the AutoCAD drawing editor and create a drawing file PERT8. Use the default prototype for AutoCAD. At the end of the exam save the file to the diskette provide by the examiner.

TASK 1 Generate a 2.00 diameter square and locate a 1.50 diameter circle in the center of the square. The square is to be in LAYER SQ and be in color red. The circle is to be in LAYER CIR and be in color green.

TASK 2 Combine the entities circle and square into a BLOCK named CIRSQ. The insertion point for the block will be at its center.

TASK 3 Call the examiner and insert the BLOCK CIRSQ at 5,4. Specify the scale at .5 and rotate the BLOCK 45 degrees clockwise.

TASK 4 Use the MINSERT to insert the BLOCK CIRSQ at 9,2 - 9,4 and 9,6. Specify the scale at .25.

TASK 5 ERASE the circle from the block you inserted at 5,4.

TASK 6 Create a WBLOCK called SQR from the block at 5,4. Be sure that the drawing remains at 5,4 after you have created the WBLOCK. Call the examiner. Check the drawing FILES to assure that the WBLOCK was created.

TASK 7 INSERT the drawing file BORDER at 0,0 keep the scale at 1.

TASK 8 Complete the title block on the border drawing as follows:
SCALE: 1/1 (Text Height .125)
NAME: Your initials and surname (TEXT HEIGHT.15)

TASK 9 Save the file to the diskette.

COMPETENCY EXAM RATING SHEET

Competency: Using Previously Created Drawing Entities in AutoCAD.

Performance Objective: The student will use the BLOCK, INSERT, MINSERT, EXPLODE and WBLOCK to create, store, use the symbols, drawings and details that are frequently used to generate a drawing file in AutoCAD, achieving 100% mastery on the performance exam.

STUDENT ______________________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. The drawing entities, layers and colors were according to the specification.			
2. A BLOCk named CIRSQ was created with the insertion point at the center of the circle.			
3. BLOCK CIRSQ was inserted at the proper location, scale and rotation.			
4. The BLOCK was MINSERTED at the proper locations using the specified scale.			
5. The circle was ERASED from the block at 5,4.			
6. A WBLOCK called SQR was created from the block at 5,4. The drawing files were checked to assure that WBLOCK SQR was created.			
7. The drawing file BORDER.DWG was inserted at 0,0.			
8. Title block was completed as specified.			
9. Performed ALL the prerequisite skills necessary to complete this examination.			
10. Performed the competency within the allocated time limit.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Demonstrated problem solving abilities.			
12. Used equipment correctly.			
13. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING AND USING A SYMBOL LIBRARY IN AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #9

Competency: Creating and Using a Symbol Library in AutoCAD.

Performance Objective: The student will create a group of symbols and store them in a library for later application, achieving 100% mastery on the performance exam.

1) The maximum time allowed for this exam is one hour.

2) The performance exam consists of nine tasks.

3) For each task you will be evaluated on your ability to perform the skills necessary to mastery the competency.

4) Upon completion of the performance examination, return the work station to its pre-examination condition.

5) This exam booklet, reference material, and diskette must be returned to the examiner before leaving the exam area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

CREATING AND USING A SYMBOL LIBRARY IN AUTOCAD

PERFORMANCE EXAM:

TASK 1 Enter the drawing editor and create a new drawing LIBEL.

TASK 2 Using attached sketch create the three drawings as shown. Put all TEXT in a LAYER TEXT. (Dimensions and angles are for your use do not put on drawings). Line work for the drawing is in LAYER 0.

TASK 3 Store each of the drawings as a BLOCK. The block name will be the title shown on the sketch. The insertion point will be as shown on the sketch.

TASK 4 After you have stored the blocks, insert them back to the LIBEL drawing and save the file.

TASK 5 Call the examiner and obtain a listing of the blocks in the drawing.

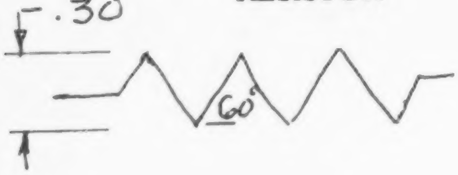
TASK 6 FREEZE the LAYER TEXT and save the drawing LIBEL to the diskette provided.

TASK 7 EXIT the drawing editor.

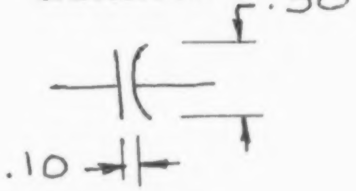
TASK 8 Get back in the drawing editor and begin a new drawing CIRCUIT. INSERT LIBEL (the drawing must be resident but not visible).

TASK 9 Create the drawing using the symbols from LIBEL. This is a non-dimension drawing.

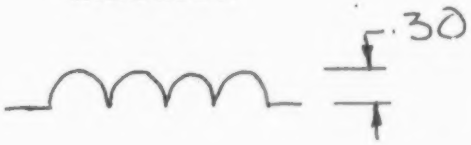
RESISTOR



CAPACITOR



INDUCTOR



TASK 10 Save the file to the diskette.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING AND USING A SYMBOL LIBRARY IN AUTOCAD

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #9

Competency: Using Previously Created Drawing Entities in AutoCAD.

Performance Objective: The student will create a group of symbols and store them in a library for later application, achieving 100% mastery on the performance exam.

1) The maximum time allowed for completion of the exam is one hour.

2) There are nine tasks that the student must complete.

3) The examiner will provide the student with a blank diskette that shall be used for filing the two drawings the student will create. Each student should have access to a reference manual for AutoCAD.

4) The examiner will clarify any questions before the exam begins.

5) Rate and record individual student performance as the examination progresses on the competency exam rating sheet.

6) Upon completion of the examination collect test booklets, diskettes, and reference materials and return to the appropriate administrator.

7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A microcomputer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette
AutoCAD Reference Manual

Time started: ______
Time finished: ______

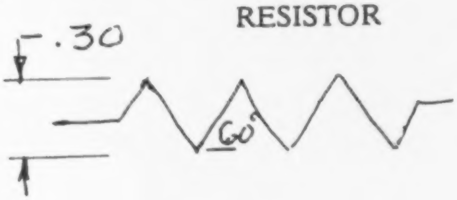
COMPETENCY EXAMINATION

CREATING AND USING A SYMBOL LIBRARY IN AUTOCAD

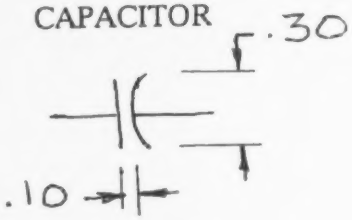
PERFORMANCE EXAM:

TASK 1	Enter the drawing editor and create a new drawing LIBEL.
TASK 2	Using attached sketch create the three drawings as shown. Put all TEXT in a LAYER TEXT. (Dimensions and angles are for your use do not put on drawings). Line work for the drawing is in LAYER 0.
TASK 3	Store each of the drawings as a BLOCK. The block name will be the title shown on the sketch. The insertion point will be as shown on the sketch.
TASK 4	After you have stored the blocks, insert them back to the LIBEL drawing and save the file.
TASK 5	Call the examiner and obtain a listing of the blocks in the drawing.
TASK 6	FREEZE the LAYER TEXT and save the drawing LIBEL to the diskette provided.
TASK 7	EXIT the drawing editor.
TASK 8	Get back in the drawing editor and begin a new drawing CIRCUIT. INSERT LIBEL (the drawing must be resident but not visible).
TASK 9	Create the drawing using the symbols from LIBEL. This is a non-dimension drawing.

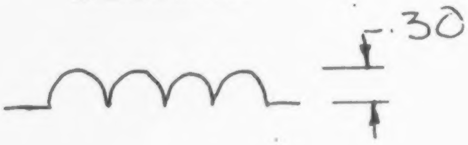
RESISTOR



CAPACITOR



INDUCTOR



TASK 10	Save the file to the diskette.

COMPETENCY EXAMINATION RATING SHEET

Competency: Creating and Using a Symbol Library in AutoCAD.

Performance Objective: The student will create a group of symbols and store them in a library for later application, achieving 100% mastery on the performance exam.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Created a new drawing LIBEL.			
2. Generated three details from the sketch and put the text in the proper layer.			
3. Stored each of the details as separated BLOCKS with the specified text and placed the insertion point as shown on the sketch.			
4. INSERTED the BLOCKS back into the drawing LIBEL and saved the file.			
5. LISTED the blocks in the drawing file LIBEL.			
6. FROZE the LAYER TEXT and saved the file LIBEL to the diskette.			
7. EXITED the drawing editor.			
8. Created a new drawing CIRCUIT and insert the drawing LIBEL, the drawing LIBEL was resident but not visible.			
9. Generated as specified from the sketch using the symbols from the drawing file LIBEL.			
10. Saved the file CIRCUIT.DWG to the diskette.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Performed ALL the prerequisite skills necessary to complete this examination.			
12. Performed the competency within the allocated time limit.			
13. Demonstrated problem solving abilities.			
14. Used equipment correctly.			
15. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING AUTOCAD DIMENSIONING CAPABILITIES

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTION TO THE STUDENT

PERFORMANCE EXAMINATION #10

Competency: Using AutoCAD Dimensioning Capabilities.

Performance Objective: The student will use the dimensioning variables of AutoCAD to properly dimension a drawing to a specified dimensioning style and fit the drawing to a specified scale, achieving 100% mastery on performance exam.

1) The maximum time allowed for this exam is 45 minutes.
2) The performance exam consists of seven tasks.
3) For each task you will be evaluated as the examination progresses on your ability to perform the skills necessary to master the competency.
4) Task number six requires a knowledge of numerous skills for completion.
5) Upon completion of the performance exam, return the work station to its pre-examination condition.
6) This exam booklet reference material, and diskette must be returned to the examiner before leaving the test area.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A Micro-computer station with AutoCAD release 10 or later.
AutoCAD Reference Manual

Time started: ________
Time finished: ________

COMPETENCY EXAMINATION

USING AUTOCAD DIMENSIONING CAPABILITIES

PERFORMANCE EXAM:

Instructions to Student: Enter the drawing editor and copy the file PERT10 from the diskette to your user file or directory. You are to assume a plot scale of 1/2" = 1' for this drawing. The units for the drawing are architectural.

TASK 1 Set the units to display the fractions to the nearest one-fourth (1/2") inch.

TASK 2 The dimension text is to be displayed above the dimension line. (Hint this requires dim var settings).

TASK 3 The dimension text is to be one-eighth (1/8") inch and in a complex text font.

TASK 4 The dimension arrow size will be set for five-sixteenths (5/16") inch.

TASK 5 Dim scale will be set to provide the one-eighth (1/8") text height when the drawing is plotted.

TASK 6 Dimension the drawing PERT 10 according to the following sketch: Dimensions are to be in a LAYER DIM and be color red.

TASK 7 Upon completion save the file to the diskette and return to the examiner.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

USING AUTOCAD DIMENSIONING CAPABILITIES

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS TO THE EXAMINER

PERFORMANCE EXAMINATION #10

Competency: Using AutoCAD Dimensioning Capabilities.

Performance Objective: The student will use the dimensioning variables of AutoCAD to properly dimension a drawing to a specified dimensioning style and fit the drawing to a specified scale, achieving 100% mastery on performance exam.

1) The maximum time allowed for completion of the exam is 45 minutes.
2) There are sevem tasks that the student must complete.
3) The examiner will provide the student with a diskette containing the file PERT10.DWG. Each student should access to a reference manual for AutoCAD.
4) The examiner will clarify any questions before the exam begins.
5) Rate and record individual student performance on the competency exam rating sheet as the exam progresses.
6) At end of the allocated time collect test booklets, diskettes, and reference materials and return to the appropriate administrator.
7) Assure that all workstations are secured.

Facility:

Computer Assisted Design Laboratory.

Materials Needed:

A microcomputer station with AutoCAD release 10 or later.
Blank 5-1/4" or 3-1/2" high density diskette
AutoCAD Reference Manual

Time started: ______
Time finished: ______

COMPETENCY EXAMINATION

USING AUTOCAD DIMENSIONING CAPABILITIES

PERFORMANCE EXAM:

Instructions to Student: Enter the drawing editor and copy the file PERT10 from the diskette to your user file or directory. You are to assume a plot scale of 1/2" = 1' for this drawing. The units for the drawing are architectural.

TASK 1	Set the units to display the fractions to the nearest one-fourth (1/4") inch.
TASK 2	The dimension text is to be displayed above the dimension line. (Hint this requires dim var settings).
TASK 3	The dimension text is to be one-eighth (1/8") inch and in a complex text font.
TASK 4	The dimension arrow size will be set for five-sixteenths (5/16") inch.
TASK 5	Dim scale will be set to provide the one-eighth (1/8") text height when the drawing is plotted.
TASK 6	Dimension the drawing PERT10 according to the following sketch: Dimensions are to be in a LAYER DIM and be color red.
TASK 7	Upon completion save the file to the diskette and return to the examiner.

COMPETENCY EXAMINATION RATING SHEET

Competency: Using AutoCAD Dimensioning Capabilities.

Performance Objective: The student will use the dimensioning variables of AutoCAD to properly dimension a drawing to a specified dimensioning style and fit the drawing to a specified scale, achieving 100% mastery on performance exam.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Set the units to display the specified fraction.			
2. Dim VARS were set to display the dimension text above the dimension line.			
3. Dimension text was set at the specified size (1/8").			
4. Dimension arrow size was set at the specified size.			
5. The Dim scale was set to provide a text height of 1/8" when the drawing is plotted.			
6. Dimensions were put in a LAYER Dim with red as the color.			
7. The drawing PERT10.DWG was dimensioned as specified on the sketch.			
8. Performed ALL the prerequisite skills necessary to complete this exam.			
9. Performed the competency within the allocated time limit.			
10. Demonstrated problem solving abilities.			
11. Used equipment correctly.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
12. Secured the machine to pre-examination condition.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

FILE UTILITIES WITHIN AUTOCAD

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #11

Competency: File Utilities Within AutoCAD.

Performance Objective: Access and utilize the file utilities menu of AutoCAD (version 11) from the main menu and from within the AutoCAd Editor, achieving 100% mastery on the performance exam.

1) The exam consists of twelve tasks. You will be rated for your ability to list files, delete files, copy files, and rename files. Upon completion to each task, inform the examiner.
2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.
3) The maximum time allowed for this exam is 30 minutes.
4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.
5) The student exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Science Lab

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: _______
Time finished: _______

COMPETENCY EXAMINATION

FILE UTILITIES (MAIN MENU)

PERFORMANCE EXAM:

TASK 1	Under the user number assigned to you, go to the Main Menu of AutoCAD.
TASK 2	List the drawing files in your directory.
TASK 3	List all the files that end with "BAK" in your directory.
TASK 4	As you have previously discovered, there is a drawing that starts with a "TR" in your directory. Delete this file from your directory.
TASK 5	Move the "TBA" drawing to your floppy diskette.
TASK 6	Rename the "TBA" drawing on the diskette to a drawing named "XYZ".
TASK 7	Move into the drawing editor by creating a new drawing named "NEW".
TASK 8	Go to file utilities while in the drawing editor.
TASK 9	Rename drawing "XYZ" on your floppy to "TBA".
TASK 10	Copy drawing "TBA" from your floppy to your user number on the hard drive.
TASK 11	Exit file utilities.
TASK 12	Exit AutoCAD without saving your drawing.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

FILE UTILITIES WITHIN AUTOCAD

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #11

Competency: File Utilities with AutoCAD.

Performance Objective: Access and utilize the file utilities menu of AutoCAD (version 11) from the main menu and from within the AutoCAD Editor, achieving 100% mastery on the performance exam.

1) Before allowing the student to start, create a "dummy" DW6 file named TR and TBA.

2) Maximum time for the exam is 15 minutes.

3) There are twelve tasks that the student must perform.

    1) List Drawing files.
    2) List Backup files.
    3) Delete a specific file.
    4) Move a file.
    5) Rename a file.
    6) Copy a file.
    7) Move to the AutoCAD Drawing Editor.
    8) Move to file utilities while in the drawing editor.
    9) Rename a file while in the drawing editor.
    10) Copy a drawing while in the drawing editor.
    11) Exit file utilities.
    12) Exit AutoCAD without saving the file.

4) All ratings should be made on individual competency rating sheet.

5) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Science Lab

Equipment:

Drafting lab equipped with IBM/compatible Microcomputer that is capable of running AutoCAD release 11.

Time started: _______
Time finished: _______

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COMPETENCY EXAMINATION

FILE UTILITIES (MAIN MENU)

PERFORMANCE EXAM:

TASK 1 Under the user number assigned to you, go to the Main Menu of AutoCAD.

TASK 2 List the drawing files in your directory.

TASK 3: List all the files that end with "BAK" in your directory.

TASK 4 As you have previously discovered, there is a drawing that starts with a "TR" in your directory. Delete this file from your directory.

TASK 5 Move the "TBA" drawing to your floppy diskette.

TASK 6 Rename the "TBA" drawing on the diskette to a drawing named "XYZ".

TASK 7 Move into the drawing editor by creating a new drawing named "NEW".

TASK 8 Go to file utilities while in the drawing editor.

TASK 9 Rename drawing "XYZ" on your floppy to "TBA".

TASK 10 Copy drawing "TBA" from your floppy to your user number on the hard drive.

TASK 11 Exit file utilities.

TASK 12 Exit AutoCAD without saving your drawing.

COMPETENCY EXAMINATION RATING SHEET

Competency: File Utilities Within AutoCAD.

Performance Objective: Access and utilize the file utilities menu of AutoCAD (version 11) from the main menu and from within the AutoCAd Editor, achieving 100% mastery on the performance exam. The student will, to a competency of 100%, demonstrate his ability to use the file utilities command in AutoCAD.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD main menu.			
2. Listed the drawing files on the hard drive.			
3. Listed all the backup files on the hard drive.			
4. Erased unwanted files from the hard drive.			
5. Moved files from the hard drive to a floppy disk.			
6. Renamed files on the floppy disk.			
7. Demonstrated competency in moving into the AutoCAD Drawing Editor.			
8. Changed to file utilities with AutoCAD.			
9. Renamed files while in the AutoCAD Drawing Editor.			
10. Copied files from floppies to hard drive.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Exited file utilities while in the AutoCAD Drawing Editor.			
12. Exited AutoCAD Drawing Editor.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

SETTING UP INPUT FORMATS THAT GOVERNS THE DISPLAY OF DISTANCES, COORDINATES AND ANGLES (UNITS)

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #12

Competency: Setting Up Input Formats That Govern The Display Of Coordinates, Distances, And Angles.

Performance Objective: Given specific drawing types (Architectural, decimal, fractional, or civil), the student will be able to setup his drawing so that he/she is able to draw a specific drawing having set the type of units, precision of decimals, the system of angular measurement, no. of fractional places for display of angles, the direction of angle "0", and measuring angles clockwise or counter clockwise, achieving 100% mastery on the performance exam.

1) The exam consists of ten tasks. You will be rated for your ability to set up Architectural, decimal, fractional, or civil (Engineering) drawings. Upon completion of each task, inform the examiner.

2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters achieving 100% mastery on the performance exam.

3) The maximum time allowed for this exam is 30 minutes.

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Drafting lab equipped with IBM/compatible microcomputer that is capable of running AutoCAD release 11.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: _______
Time finished: _______

COMPETENCY EXAMINATION

FORMATS

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor using your user number.

TASK 2 Go to the appropriate command in AutoCAD and set up a configuration to do an Architectural drawing. The denominator of the smallest fraction we want to draw to is 2. Any angle we draw or dimension will be decimal degrees. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 3 Save your drawing as "ARCH" on the hard drive and on your diskette.

TASK 4 Set up another configuration to do an Mechanical drawing in decimal. The number of decimal points to the right of the decimal point is 3. Any angle we draw or dimension will be in grads. The number of fractional places for isplay of angles will be 3. The direction for angle "0" is at 3:00 o'clock. We do want angles measured clockwise.

TASK 5 Save your drawing as "GRADS" on the hard drive and on the diskette.

TASK 6 Set up a configuration to do an Engineering drawing.
The number of digits to the right of the decimal point is 2. Any angle we draw or dimension will be in Surveyor's units. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 7 Save your drawing as "Surveyor" on the hard drive and on the diskette.

TASK 8 Set up a configuration to do an Mechanical drawing using fractions. We want our dimensions and distances measured to the nearest 1/64". Any angle we draw or dimension will be decimal degrees. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 9 Save your drawing as "Fraction" on the hard drive and on the diskette.

TASK 10 Exit AutoCAD.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

SETTING UP INPUT FORMATS THAT GOVERN THE DISPLAY OF DISTANCES, COORDINATES AND ANGLES (UNITS)

DRAFTING--RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #12

Competency: Setting Up Input Formats That Govern the Display of Distances, Coordinates and Angles.

Performance Objective: Given specific drawing types (architectural, decimal, fractional, or civil), the student will be able to setup his drawing so that he/she is able to draw a specific drawing having set the type of units, precision of decimals, the system of angular measurement, no. of fractional places for display of angles, the direction of angle "0", and measuring angles clockwise or counter clockwise, achieving 100% mastery on the performance exam.

1) Maximum time for the exam is 15 minutes.

2) There are ten tasks that the student must perform.

    1) Enter the AutoCAD Drawing Editor.
    2) Create an Architectural Configuration.
    3) Save the above configuration as a drawing.
    4) Setup a Mechanical Configuration using decimals.
    5) Save the above configuration.
    6) Setup an Engineering Configuration.
    7) Save the above configuration.
    8) Setup a Mechanical Configuration using fractions.
    9) Save the above configuration.
    10) Exit AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Drafting lab equipped with IBM/compatible microcomputer that is capable of running AutoCAD release 11.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ________
Time finished: _______

COMPETENCY EXAMINATION

FORMATS

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor using your user number.

TASK 2 Go to the appropriate command in AutoCAD and set up a configuration to do an Architectural drawing. The denominator of the smallest fraction we want to draw to is 2. Any angle we draw or dimension will be decimal degrees. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 3 Save your drawing as "ARCH" on the hard drive and on your diskette.

TASK 4 Set up another configuration to do an Mechanical drawing in decimal. The number of decimal points to the right of the decimal point is 3. Any angle we draw or dimension will be in grads. The number of fractional places for display of angles will be 3. The direction for angle "0" is at 3:00 o'clock. We do want angles measured clockwise.

TASK 5 Save your drawing as "GRADS" on the hard drive and on the diskette.

TASK 6 Set up a configuration to do an Engineering drawing. The number of digits to the right of the decimal point is 2. Any angle we draw or dimension will be in surveyor's units. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 7 Save your drawing as "Surveyor" on the hard drive and on the diskette.

TASK 8 Set up a configuration to do an Mechanical drawing using fractions. We want our dimensions and distances measured to the nearest 1/64". Any angle we draw or dimension will be decimal degrees. The number of fractional places for display of angles is 2. The direction for angle "0" is at 3:00 o'clock. We do not want angles measured clockwise.

TASK 9 Save your drawing as "Fraction" on the hard drive and on the diskette.

TASK 10 Exit AutoCAD.

COMPETENCY EXAMINATION RATING SHEET

Competency: Setting Up Input Formats That Govern the Display of Distances, Coordinates and Angles.

Performance Objective: Given specific drawing types (architectural, decimal, fractional, or civil), the student will be able to setup his drawing so that he/she is able to draw a specific drawing having set the type of units, precision of decimals, the system of angular measurement, no. of fractional places for display of angles, the direction of angle "0", and measuring angles clockwise or counter clockwise, achieving 100% mastery on the performance exam.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD Drawing Editor.			
2. Entered the units command and set up a configuration to do:			
1. Arch. format.			
2. Denominator is 2.			
3. Decimal degrees.			
4. Fract. disp of angles is 2.			
5. Angles "0" is 3:00 o'clock.			
3. Saved the above configuration as "ARCH".			
4. Entered the units command and set up a configuration to do:			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________________ Date of Rating ________________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Mech. format.			
2. Decimal places is 3.			
3. Angles are in grads.			
4. Fract. disp of angles is 3.			
5. Angle "0" is 3:00 o'clock.			
6. Angles not meas. clockwise.			
5. Saved the above configuration as "GRADS".			
6. Entered the units command and set up a configuration to do:			
1. Engineering format.			
2. Decimal place is 2.			
3. Surveyor's units			
4. Fract. disp. of angles is 2.			
5. Angle "0" is 3:00 o'clock.			
6. Angles not meas. clockwise.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
7. Save the above configuration as "SURVEYOR".			
8. Entered the units command and set up a configuration to do:			
1. Mech. format.			
2. Denominator is 64.			
3. Decimal degrees.			
4. Fract. disp of angles is 2.			
5. Angles "0" is 3:00 o'clock.			
6. Angles not meas. clockwise.			
9. Save the above configuration as "FRACTION".			
10. Exit AutoCAD.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING DRAWING LIMITS

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #13

Competency: Establishing Drawing Limits.

Performance Objective: Given specific kinds of drawings (Architectural, mechanical, or civil), the student will be able to set the limits so that the drawing area will be visible on the screen, achieving 100% mastery on the performance exam.

1) The exam consists of eleven tasks. You will be rated for ability to calculate the lower left and upper right limits of certain types of drawings. Upon completion of each task, inform the examiner.

2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) The maximum time allowed for this exam is 15 minutes.

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Facility:

Computer Assisted Design Laboratory

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

LIMITS

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor using your user number. Any appropriate file name will do.

TASK 2 If you use AutoCAD's default settings, what is the size of the area on the screen on which you will be drawing? __________ x __________

TASK 3 Assume you are going to draw a drawing on an "A" size (11 x 8 1/2) sheet of paper. Go to the proper AutoCAD command and set the screen area for this exact sheet of paper.

TASK 4 Assume you have an architectural drawing whose overall dimensions are 125' x 56'. Go to the proper AutoCAD command and set the screen area for these exact dimensions.

TASK 5 Zoom all.

TASK 6 Set a grid to 2'.

TASK 7 Go to the proper AutoCAD command and set it so that you cannot draw outside the limits.

TASK 8 Exit the drawing editor. Do not save the drawing.

TASK 9 Enter the AutoCAD Drawing Editor using your user number. Any appropriate file name will do.

TASK 10 Assume you have a plot of land to draw. The over all boundaries of the plot are 2345' x 4000'. Set the drawing area of your screen so that you have 100' extra on each side. The lower left corner of the drawing will begin at 0,0.

TASK 11 Exit AutoCAD without saving your drawing.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING DRAWING LIMITS

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #13

Competency: Establishing Drawing Limits.

Performance Objective: Given specific kinds of drawings (architectural, mechanical, or civil), the student will be able to set the limits so that the drawing area will be visible on the screen, achieving 100% mastery on the performance exam.

1) Maximum time for the exam is 15 minutes.

2) There are eleven tasks that the student must perform.

    1) Enter the AutoCAD drawing editor.
    2) Identifies the default setting for limits. (12 x 9)
    3) Sets the proper limits for a sheet of paper 11 x 8.5.
    4) Sets the proper limits for a drawing that is 125' x 56'.
    5) Uses the zoom command to zoom all.
    6) Set a grid of 2'.
    7) Turns the limits on so that entities can not be drawn outside the limits.
    8) Exits the drawing editor without saving a drawing.
    9) Reenters the drawing editor.
    10) Sets the limits of a drawing so that the drafter will have space around the object he is drawing.
    11) Exit AutoCAD without saving the file.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Facility:

Computer Assisted Design Laboratory

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

LIMITS

PERFORMANCE EXAM:

TASK 1	Enter the AutoCAD Drawing Editor using your user number. Any appropriate file name will do.
TASK 2	If you use AutoCAD's default settings, what is the size of the area on the screen on which you will be drawing? __________ x _________
TASK 3	Assume you are going to draw a drawing on an "A" size (11 x 8 1/2) sheet of paper. Go to the proper AutoCAD command and set the screen area for this exact sheet of paper.
TASK 4	Assume you have an architectural drawing whose overall dimensions are 125' x 56'. Go to the proper AutoCAD command and set the screen area for these exact dimensions.
TASK 5	Zoom all.
TASK 6	Set a grid to 2'.
TASK 7	Go to the proper AutoCAD command and set it so that you cannot draw outside the limits.
TASK 8	Exit the drawing editor. Do not save the drawing.
TASK 9	Enter the AutoCAD Drawing Editor using your user number. Any appropriate file name will do.
TASK 10	Assume you have a plot of land to draw. The over all boundaries of the plot are 2345' x 4000'. Set the drawing area of your screen so that you have 100' extra on each side. The lower left corner of the drawing will begin at 0,0.
TASK 11	Exit AutoCAD without saving your drawing.

COMPETENCY EXAMINATION RATING SHEET

Competency: Establishing Drawing Limits.

Performance Objective: Given specific kinds of drawings (architectural, mechanical, or civil), the student will be able to set the limits of the drawing area, achieving 100% mastery on the performance exam.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD main menu.			
2. Correctly identified AutoCAD's default limits as 12 x 9.			
3. Set the lower left limits to 0,0 and the upper right to 11 x 8.5.			
4. Set the lower left limits to 0,0 and the upper right to 125', 56'.			
5. Zoomed all to show all of area inside the limits.			
6. Correctly set grid to 2'.			
7. Set limits to "on" so that entities are not drawn outside boundaries.			
8. Exited AutoCAD drawing editor.			
9. Reentered drawing editor from main menu.			
10. Properly set the lower left limit to -100', -100' and the upper right to 2445', 4100'.			
11. Exited AutoCAD without saving the drawing.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING AND MANIPULATING DRAWING LAYERS

DRAFTING--RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #14

Competency: Establishing and Manipulating Drawing Layers.

Performance Objective: The student will be able to create layers, turn layers on and off, get a listing of layers, change layer color and linetype, freeze and thaw layers, set the layer you want to currently work in, and get a listing of existing layers, achieving 100% mastery on the performance exam.

1) The exam consists of ten tasks. You will be rated for your ability to manipulate AutoCAd's powerful layer command. Upon completion of each task, inform the examiner.

2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) Time allowed: 15 minutes

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Facility:

Computer Assisted Design Laboratory

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

LAYERS

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by creating a drawing named LAYERS.

TASK 2 Create the following layers with their respective colors, linetypes, frozen and thawed states and on and off conditions.

LAYER NAME	ON/OFF	FREEZE/THAW	COLOR	LINETYPE
OBJECT	ON		RED	CONTINUOUS
HIDE	ON		GREEN	HIDDEN
HIDDEN	ON		WHITE	HIDDEN2
CIRCLE	ON		BLUE	CONTINUOUS
SECTION	ON		CYAN	PHANTOM2

FOR TASK 3 THRU 10, USE KEYBOARD ONLY. DO NOT USE THE LAYER CONTROL DIALOGUE BOX.

TASK 3 List the layers showing their status, colors and linetypes.

TASK 4 Make layer OBJECT the current layer.

TASK 5 Check the status of the layers that begin with H.

TASK 6 Freeze all the layers except the current layer.

TASK 7 Change layer HIDDEN into a green color.

TASK 8 Thaw layer CIRCLE and SECTION with only 5 key strokes.

TASK 9 Do the following in one continuous operation. Make a new layer whose name is TRASH, color green, linetype dashdot.

TASK 10 Exit the drawing editor. Do not save the drawing.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING AND MANUIPULATING DRAWING LAYERS

DRAFTING—RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #14

Competency: Establishing and Manipulating Drawing Layers.

Performance Objective: The student will be able to create layers, turn layers on and off, get a listing of layers, change layer color and linetype, freeze and thaw layers, set the layer you want to currently work in, and get a listing of existing layers, achieving 100% mastery on the performance exam.

1) Maximum time for the exam is 15 min.

2) There are ten tasks that the student must perform.

    1) Enter the AutoCAD drawing editor.
    2) Create and edit specific layers by color, linetype, on/off, and freeze/thaw.
    3) List layers using the "?" to show status.
    4) Set a layer to be the current layer.
    5) Check the status of layers using the "*".
    6) Freeze layers.
    7) Change certain layers in a different layer.
    8) Thaw certain layers using the "*".
    9) Create a new layer, change the color, and linetype in one continuous step.
    10) Exit AutoCAD without saving the file.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Facility:

Computer Assisted Design Laboraotry

Time started: ____________
Time finished: ___________

COMPETENCY EXAMINATION

LAYERS

PERFORMANCE EXAM:

TASK 1	Enter the AutoCAD Drawing Editor by creating a drawing named LAYERS.
TASK 2	Create the following layers with their respective colors, linetypes, frozen and thawed states and on and off conditions.

LAYER NAME	ON/OFF	FREEZE/THAW	COLOR	LINETYPE
OBJECT	ON		RED	CONTINUOUS
HIDE	ON		GREEN	HIDDEN
HIDDEN	ON		WHITE	HIDDEN2
CIRCLE	ON		BLUE	CONTINUOUS
SECTION	ON		CYAN	PHANTOM2

FOR TASK 3 THRU 10, USE KEYBOARD ONLY. DO NOT USE THE LAYER CONTROL DIALOGUE BOX.

TASK 3	List the layers showing their status, colors and linetypes.
TASK 4	Make layer OBJECT the current layer.
TASK 5	Check the status of the layers that begin with H.
TASK 6	Freeze all the layers except the current layer.
TASK 7	Change layer HIDDEN into a green color.
TASK 8	Thaw layer CIRCLE and SECTION with only 5 key strokes.
TASK 9	Do the following in one continuous operation. Make a new layer whose name is TRASH, color green, linetype dashdot.
TASK 10	Exit the drawing editor. Do not save the drawing.

COMPETENCY EXAMINATION RATING SHEET

Competency: Establishing and Manipulating Drawing Layers.

Performance Objective: The student will be able to create layers, turn layers on and off, get a listing of layers, change layer color and linetype, freeze and thaw layers, set the layer you want to currently work in, and get a listing of existing layers, achieving 100% mastery on the performance exam.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor.			
2. Created the following layers:			
OBJECT ON RED CONTINUOUS			
HIDE ON GREEN HIDDEN			
HIDDEN ON WHITE HIDDEN2			
CIRCLE ON BLUE CONTINUOUS			
SECTION ON CYAN PHANTOM2			
3. Listed the layers showing the status, colors and linetypes.			
4. Set layer OBJECT as the current layer.			
5. Checked the status of the layers that started with"H".			
6. Froze all layers except the current layer.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
7. Change layer HIDDEN into color green.			
8. Thawed layer CIRCLE and SECTION by using C*, S*.			
9. Made layer TRASH, green dashdot in one continuous operation.			
10. Exited the drawing editor.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

POINT ENTITY DISPLAY MODE (PDMODE)

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #15

Competency: Establishing and Manipulating Particular Kinds of Points that are Available in AutoCAD.

Performance Objective: The student will be able to view and set the system to draw any of the twenty kinds of points available in AutoCAD, achieving 100% mastery on the performance exam.

1) The exam consists of five tasks. You will be rated for your ability to view, set, and use various kinds of points that are available in AutoCAD.
2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.
3) Time allowed: 15 minutes.
4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.
5) The student performance exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

POINT ENTITY DISPLAY MODE (PDMODE)

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named POINT.

TASK 2 On the sheet labeled "POINT TYPES IN AUTOCAD", sketch the various point types that are available in AutoCAD above it's respective number. After doing this, press ctrl-c to return to command prompt.

TASK 3 Enter the proper AutoCAD command and set the point mode so you can draw an "X" when you place a point on the drawing.

TASK 4 Place points at the ends of the line segments of the drawing on the screen.

TASK 5 Save the drawing and exit the drawing editor.

Student Name ____________________ **Date** _____________

POINT TYPES IN AUTOCAD

0	1	2	3	4
32	33	34	35	36
64	65	66	67	68
96	97	98	99	100

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

POINT ENTITY DISPLAY MODE (PDMODE)

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #15

Competency: Establishing and Manipulating Particular Kinds of Points that are Available in AutoCAD.

Performance Objective: The student will be able to view and set the system to draw any of the twenty kinds of points available in AutoCAD, achieving 100% mastery on the performance exam.

1) Maximum time for the exam is 15 min.

2) There are five tasks that the student must perform.

    1) Enter the AutoCAD drawing editor by editing and existing drawing.
    2) Sketch the twenty types of points available in AutoCAD.
    3) Enter "pdmode" and set to "3".
    4) Place points using pdmode 3 at the end of line segments.
    5) Save the drawing and exit AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
1/2 or 5 1/4 high density diskette

Time started: ____________
Time finished: ____________

COMPETENCY EXAMINATION

POINT ENTITY DISPLAY MODE (PDMODE)

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named POINT.

TASK 2 On the sheet labeled "POINT TYPES IN AUTOCAD", sketch the various point types that are available in AutoCAD above it's respective number. After doing this, press ctrl-c to return to command prompt.

TASK 3 Enter the proper AutoCAD command and set the point mode so you can draw an "X" when you place a point on the drawing.

TASK 4 Place points at the ends of the line segments of the drawing on the screen.

TASK 5 Save the drawing and exit the drawing editor.

Student Name ____________________ **Date** _____________

POINT TYPES IN AUTOCAD

0	1	2	3	4
32	33	34	35	36
64	65	66	67	68
96	97	98	99	100

COMPETENCY EXAMINATION RATING SHEET

Competency: Establishing and Manipulating Particular Kinds of Points that are Available in AutoCAD.

Performance Objective: The student will be able to view and set the system to draw any of the twenty kinds of points available in AutoCAD, achieving 100% mastery on the performance exam.

STUDENT ______________________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter AutoCAD editor by editing drawing.			
2. Was able to go to the Draw command in the side menu and enter the point command at which time was able to move to complex points example slide showing the various kinds of points available in AutoCad. Sketched pdmodes avail.			
3. Entered pdmode and set "3".			
4. Placed points (X's) at the end of the line segments.			
5. Saved the drawing and exited the drawing editor.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

POINT ENTITY DISPLAY SIZE (PDSIZE)

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #16

Competency: Point Entity Display Size (PDSIZE).

Performance Objective: The student will be able to change the size and draw any of the twenty kinds of points available in AutoCAD so that it will apply to the scale of a drawing, achieving 100% mastery on the performance exam.

1) The exam consists of five tasks. You will be rated for your ability to select a particular point mode (kind of point) and change its size in order to use it on a scale drawing.

2) For each task you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) The maximum time allowed for this exam is 15 minutes.

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

POINT SIZES

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named POINTS.

TASK 2 Enter the proper AutoCAD command and set the point mode so you can draw a "O" (zero) when you place a point on the drawing.

TASK 3 The drawing on your screen represents a plot of land. At the end of all the line segments we want to place a point which will represent survey stakes. The drawing is to be plotted at a scale of 1"=50'. Enter the proper AutoCAD command and set the point size so that you are drawing a 1/16" dia. point when the drawing is plotted. Show your math on a sheet of scratch paper.

TASK 4 Place points at the end of all line segments.

TASK 5 Save the drawing and exit the drawing editor.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

POINT ENTITY DISPLAY SIZE (PDSIZE)

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #16

Competency: Point Entity Display Size (PDSIZE).

Performance Objective: The student will be able to change the size and draw any of the twenty kinds of points available in AutoCAD so that it will apply to the scale of a drawing, achieving 100% mastery on the performance exam.

1) Maximum time for the exam is 15 minutes.

2) There are five tasks that the student must perform.

   1) Enter the AutoCAD drawing editor by editing and existing drawing.
   2) Enter pdmode command and set to 33.
   3) Calculate pdsize and set that size to 225.
   4) Place points using pdmode 33 and pdsize 225 at the end of line segments.
   5) Save the drawing and exit AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Time started: ____________
Time finished: ___________

COMPETENCY EXAMINATION

POINT SIZES

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named POINTS.

TASK 2 Enter the proper AutoCAD command and set the point mode so you can draw a "O" (zero) when you place a point on the drawing.

TASK 3 The drawing on your screen represents a plot of land. At the end of all the line segments we want to place a point which will represent survey stakes. The drawing is to be plotted at a scale of 1"=50'. Enter the proper AutoCAD command and set the point size so that you are drawing a 1/16" dia. point when the drawing is plotted. Show your math on a sheet of scratch paper.

TASK 4 Place points at the end of all line segments.

TASK 5 Save the drawing and exit the drawing editor.

COMPETENCY EXAMINATION RATING SHEET

Competency: Point Entity Display Size (PDSIZE).

Performance Objective: The student will be able to change the size and draw any of the twenty kinds of points available in AutoCAD so that it will apply to the scale of a drawing, achieving 100% mastery on the performance exam.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor by editing drawing.			
2. Was able to go the Draw command in the side menu and enter the point command at which time was able to move to complex points example slide showing the various kinds of points available in AutoCAD. Changed pdmode to 33.			
3. Entered pdsize and set to 225. 1/16 = .0625 * 600 (ratio of 1" = 50') = 37.5.			
4. Placed points (0's) at the end of the line segments.			
5. Saved the drawing and exited the drawing editor.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

DETERMINING SCALE FACTORS

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #17

Competency: Determining Scale Factors.

Performance Objective: Given drawings, the student will determine what size paper to plot on and what scale the drawing is to be plotted, achieving 100% mastery on the performance exam.

1) The exam consists of nineteen tasks. You will be rated for your ability to determine the sheet size and scale to plot a drawing.

2) For each job you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) Maximum time allowed for the exam 1 hour and 30 minutes.

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student performance exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Lab

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

DETERMINING SCALE FACTORS

For the tasks below assume the following sheet sizes:

"A" size	11 x 8.5	(10.5 x 8 inside border)
"B" size	17 x 11	(16 x 10 inside border)
"C" size	22 x 17	(21 x 16 inside border)
"D" size	36 x 24	(34 x 22 inside border)

You will also need the following files during the exam:

VEEBLOCK.DWG
TBA.DWG
RODSTOP.DWG
SHEAVE.DWG
TBB.DWG
LAND.DWG
TBC.DWG
HOUSE.DWG
TBD.DWG

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named VEEBLOCK.

TASK 2 Insert the "TBA" drawing into the VEEBLOCK drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 3 Determine the smallest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 4 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 5 After the instructor has evaluated the above tasks, quit and modify an existing drawing named RODSTOP.

TASK 6 Insert the "TBA" drawing into the RODSTOP drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 7 Determine the largest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 8 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 9 After the instructor has evaluated the above tasks, quit and modify an existing metric drawing named SHEAVE.

TASK 10 The SHEAVE is to be plotted on a "B" size sheet at 1mm = 2mm. Insert the "TBB" drawing and modify it so that it will be the proper size on the screen but will plot at the desired scale. Feel free to use any AutoCAD command to zoom or pan so that you can obtain the desired outcome.

TASK 11 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 12 After the instructor has evaluated the above tasks, quit and modify an existing drawing named LAND.

TASK 13 Insert the "TBC" drawing into the LAND drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 14 Determine the largest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 15 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 16 After the instructor has evaluated the above tasks, quit and modify an existing drawing named HOUSE.

TASK 17 If the drawing is to be plotted at a scale of 1/4"=1'-0", what is the smallest sheet of paper that could be used? You may demonstrate to the examiner how you arrived at your answer, or show the calculations on a separate sheet of paper.

TASK 18 What is the largest scale that could be used to plot HOUSE on a "B" size sheet of paper? You may demonstrate to the examiner how you arrived at your answer, or show the calculations on a separate sheet of paper.

TASK 19 Quit the session and exit AutoCAD.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

DETERMINING SCALE FACTORS

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #17

Performance Objective: Given drawings, the student is to determine what size paper to plot on and what scale the drawing is to be plotted, achieving a 100% mastery on the performance exam.

1) Maximum time for the exam is 1 hour and 30 minutes.

2) There are nineteen tasks that the student must perform.

    1) Enter the AutoCAD drawing editor by editing and existing drawing.
    2) Insert a drawing into the current drawing.
    3) Determining the scale to be used to plot.
    4) Exploding and changing text in the titleblock.
    5) Quitting the drawing editor and editing another drawing.
    6) Inserting a drawing into the current drawing.
    7) Determining the scale to be used to plot.
    8) Exploding and changing text in the titleblock.
    9) Quitting the drawing editor and editing another drawing.
    10) Insert and scale an "English" drawing changing it to "Metric". Scale it again so it will be plotted at 1mm=2mm.
    11) Exploding and changing text in the titleblock.
    12) Quitting the drawing editor and editing another drawing.
    13) Inserting a drawing into the current drawing.

    14) Determining the smallest scale to be used to plot a drawing.
    15) Exploding and changing text in the titleblock.
    16) Quitting the drawing editor and editing another drawing.
    17) Determine what sheet size is to be used with a drawing to be plotted at a particular scale.
    18) Determine the largest scale that could be used to plot a drawing on a "B" size sheet.
    19) Quitting the drawing session and exiting AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
calculator (optional)

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

DETERMINING SCALE FACTORS

For the tasks below assume the following sheet sizes:

"A" size	11 x 8.5	(10.5 x 8 inside border)
"B" size	17 x 11	(16 x 10 inside border)
"C" size	22 x 17	(21 x 16 inside border)
"D" size	36 x 24	(34 x 22 inside border)

You will also need the following files during the exam:

VEEBLOCK.DWG
TBA.DWG
RODSTOP.DWG
SHEAVE.DWG
TBB.DWG
LAND.DWG
TBC.DWG
HOUSE.DWG
TBD.DWG

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named VEEBLOCK.

TASK 2 Insert the "TBA" drawing into the VEEBLOCK drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 3 Determine the smallest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 4 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 5 After the instructor has evaluated the above tasks, quit and modify an existing drawing named RODSTOP.

TASK 6 Insert the "TBA" drawing into the RODSTOP drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 7 Determine the largest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 8 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 9 After the instructor has evaluated the above tasks, quit and modify an existing metric drawing named SHEAVE.

TASK 10 The SHEAVE is to be plotted on a "B" size sheet at 1mm = 2mm. Insert the "TBB" drawing and modify it so that it will be the proper size on the screen but will plot at the desired scale. Feel free to use any AutoCAD command to zoom or pan so that you can obtain the desired outcome.

TASK 11 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 12 After the instructor has evaluated the above tasks, quit and modify an existing drawing named LAND.

TASK 13 Insert the "TBC" drawing into the LAND drawing. The insertion point is at "0,0", the x and y scale factor is 1 and the rotation is "0".

TASK 14 Determine the largest scale that could be used to plot this drawing. If necessary rescale the titleblock so it will be the proper ratio.

TASK 15 Explode the titleblock and change the xxxx to indicate the proper plotted scale of the drawing.

TASK 16 After the instructor has evaluated the above tasks, quit and modify an existing drawing named HOUSE.

TASK 17 If the drawing is to be plotted at a scale of 1/4"=1'-0", what is the smallest sheet of paper that could be used? You may demonstrate to the examiner how you arrived at your answer, or show the calculations on a separate sheet of paper.

TASK 18 What is the largest scale that could be used to plot HOUSE on a "B" size sheet of paper? You may demonstrate to the examiner how you arrived at your answer, or show the calculations on a separate sheet of paper.

TASK 19 Quit the session and exit AutoCAD.

COMPETENCY EXAMINATION RATING SHEET

Competency: Determining Scale Factors.

Performance Objective: Given drawings, the student will determine what size paper to plot on and what scale the drawing is to be plotted, achieving 100% mastery on the performance exam.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor by editing drawing.			
2. Demonstrated ability to insert "TBA" into a drawing.			
3. Determined that the smallest scale is 1"=1".			
4. Exploded titleblock and changed xxxx to 1"=1".			
5. Quit the drawing editor and edited an existing drawing named RODSTOP.			
6. Demonstrated ability to insert "TBA" into a drawing.			
7. Determined the smallest scale is 1/2"=1".			
8. Exploded titleblock and changed xxxx to 1/2"=1".			
9. Quit the drawing editor and edited an existing drawing named SHEAVE.			
10. Demonstrated ability to insert "TBB", scale 25.4 times bigger and scale again at a factor of 2. When plotted, this makes the drawing scale 1mm=2mm.			
11. Exploded the titleblock and changed xxxx to 1mm=2mm.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
11. Exploded the titleblock and changed xxxx to 1mm=2mm.			
12. Quit the drawing editor and edited an existing drawing named LAND.			
13. Demonstrated ability to insert "TBC" drawing into a drawing.			
14. Determined the smallest scale to be 1"=800' (1/9600).			
15. Exploded the titleblock and changed xxxx to 1"=800'.			
16. Quit the drawing editor and edited and existing drawing named HOUSE.			
17. Demonstrated insertion of "TBD" and scaled 48 times larger. Alternate solution was to take total distance across drawing 90') x 12 = 1080'. TBD is 34" wide from left side to right side. 1080/34=31.76. 1/4'= 1' is ratio of 1/48 so TBD would fit if scaled 48 times.			
18. Inserted "TBB" and scaled 96 times. Distance across drawing 90') x 12 = 1080. TBB is 16" wide from left side to right side. 1080/16=67.5. 1/8'=1' is a ratio of 1/96 so TBB would fit if scaled 96 times. A scale of 3/32"=1'-0" (1/128) would make for more room on the drawing.			
19. Quit the session and exited AutoCAD.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING AND MANIPULATING VIEWPORTS

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #18

Competency: Establishing and Manipulating Viewports

Performance Objective: The student will be able to divide the AutoCAD graphics screen into different areas, achieving 100% mastery of the performance exam.

1) The exam consists of eighteen tasks. You will be rated on your ability to manipulate the graphic screen.

2) For each job you will be rated on your ability to perform kills necessary for CAD Drafters according to standard procedure.

3) The maximum time allowed for the exam is 30 minutes.

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student performance exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Lab

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

ESTABLISHING AND MANIPULATING VIEWPORTS

You will also need the following files during the exam.

SHEAVE.DWG
MSTOPS.DWG

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named SHEAVE.

TASK 2 Type the proper command or use the side menu to split the drawing into two vertical viewing areas.

TASK 3 Select the left screen and zoom up on the front view of the SHEAVE.

TASK 4 Select the right screen and zoom up on the right side view of the SHEAVE. plotted scale of the drawing.

TASK 5 Save this configuration as VP1.

TASK 6 Join the right and left screen into 1 screen. The left side is the dominant view.

TASK 7 Save this configuration as VP2.

TASK 8 Restore configuration VP1 to the screen.

TASK 9 Select the left screen and make four viewing areas.

TASK 10 Save this configuration as VP5.

TASK 11 Delete configuration VP2.

TASK 12 Quit the drawing and edit an existing drawing named MSTOPS.

TASK 13 Split the screen into three screens with the vertical being on the right side.

TASK 14 Select the upper left screen and zoom in on the foundation plan.

TASK 15	Select the lower left screen and zoom in on the foundation details.
TASK 16	Select the right screen and zoom in on the typical wall section.
TASK 17	Save this drawing as MSTOPS to your hard drive and to the floppy disk. You will need this file later.
TASK 18	Exit the drawing editor and exit AutoCAD.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

ESTABLISHING AND MANIPULATING VIEWPORTS

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #18

Competency: Establishing and Manipulating Viewports.

Performance Objective: The student will be able to divide the AutoCAD graphics screen into different areas, achieving 100% of the performance exam.

1) Maximum time for the exam is 30 minutes.

2) There are eighteen tasks that the student must perform.

    1) Enter the AutoCAD drawing editor by editing and existing drawing.
    2) Using the "vports" command split the screen into three parts.
    3) Select a viewport and zoom in on a view.
    4) Select another viewport and zoom in on a view.
    5) Save a viewport configuration.
    6) Joining viewports.
    7) Save a viewport configuration.
    8) Restore a viewport configuration.
    9) Make viewprots within a viewport.
    10) Save a viewport configuration.
    11) Delete a configuration.
    12) Quit the drawing editor and modify an existing drawing.
    13) Split the screen into three viewports with the vertical on the right.
    14) Select the upper left and zoom in on the foundation plan.
    15) Select the lower left and zoom in on the foundation details.
    16) Select the right viewport and zoom in on the wall section.
    17) Save the drawing.
    18) Exit the drawing editor and AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

- 1 pen or pencil
- paper
- 3 1/2 or 5 1/4 high density diskette

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

ESTABLISHING AND MANIPULATING VIEWPORTS

You will also need the following files during the exam.

SHEAVE.DWG
MSTOPS.DWG

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named SHEAVE.

TASK 2 Type the proper command or use the side menu to split the drawing into two vertical viewing areas.

TASK 3 Select the left screen and zoom up on the front view of the SHEAVE.

TASK 4 Select the right screen and zoom up on the right side view of the SHEAVE. plotted scale of the drawing.

TASK 5 Save this configuration as VP1.

TASK 6 Join the right and left screen into 1 screen. The left side is the dominant view.

TASK 7 Save this configuration as VP1.

TASK 8 Restore configuration VP1 to the screen.

TASK 9 Select the left screen and make four viewing areas.

TASK 10 Save this configuration as VP5.

TASK 11 Delete configuration VP2.

TASK 12 Quit the drawing and edit an existing drawing named MSTOPS.

TASK 13 Split the screen into three screens with the vertical being on the right side.

TASK 14 Select the upper left screen and zoom in on the foundation plan.

TASK 15 Select the lower left screen and zoom in on the foundation details.

TASK 16 Select the right screen and zoom in on the typical wall section.

TASK 17 Save this drawing as MSTOPS to your hard drive and to the floppy disk. You will need this file later.

TASK 18 Exit the drawing editor and exit AutoCAD.

COMPETENCY EXAMINATION RATING SHEET

Competency: Establishing and Manipulating Viewports.

Performance Objective: The student will be able to divide the AutoCAD graphics screen into different areas, achieving 100% mastery of the performance exam.

STUDENT ____________________ Competency Mastered YES ____ NO ____

EXAMINER ____________________ Date of Rating ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor by editing drawing.			
2. Demonstrated ability to enter the "Vports" command and split the screen into two vertical viewing areas.			
3. Selected the left screen and zoomed up on the front view.			
4. Selected the right screen and zoomed up on the right side view.			
5. Saved the configuration as "VP1".			
6. Joined the right and left screen into one screen.			
7. Saved the configuration as "VP2".			
8. Restored "VP1" to the screen.			
9. Selected the left screen and made four viewing screens.			
10. Saved this configuration as "VP5".			
11. Deleted configuration "VP2".			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ____________________ **Competency Mastered YES** ____ **NO** ____

EXAMINER ____________________ **Date of Rating** ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
12. Quit the drawing editor and edited an existing drawing named MSTOPS.			
13. Splitted the screen into three screens with the vertical being on the right.			
14. Selected the upper left screen and zoomed in on the foundation plan.			
15. Selected the lower left screen and zoomed in on the foundation details.			
16. Selected the lower left screen and zoomed in on the typical wall section.			
17. Saved the drawing as MSTOPS.			
18. Exited the drawing editor and exited AutoCAD.			

Comments:

160

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CONVERTING MODELSPACE TO PAPERSPACE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #19

Competency: Converting from Modelspace to Paperspace.

Performance Objective: The student will be able to convert a drawing from modelspace to paperspace, achieving 100% mastery of the performance exam.

1) The exam consists of nineteen tasks. You will be rated for your ability to convert a drawing from modelspace to paperspace.

2) For each job you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) Time allowed: 30 minutes

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student performance exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Lab

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION ON VIEWPORTS

You will also need the following files during the exam.

MSTOPS.DWG

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named **MSTOPS.**

TASK 2 Type the proper command or use the side menu to split the drawing into three viewing areas with the vertical being on the right side.

TASK 3 Set the tilemode to enter paperspace.

TASK 4 While in paperspace, insert three modelspace viewports with the vertical being on the right side. The first point is at 0,0 and the upper right is at 34,22.

TASK 5 Zoom all.

TASK 6 Create a new layer named **"psvports"** and change the paperspace viewports in this layer.

TASK 7 Insert drawing **"TBD"** into the drawing. The insertion point is at 0,0.

TASK 8 Move to modelspace and zoom the upper left viewing screen so that when plotted it will be at a scale of 1/8"=1'-0". You will need to pan the drawing so that the foundation plan will be approximately in the center of the viewport.

TASK 9 Move to the lower left viewport and zoom in on the foundation details. Zoom again so that when plotted it will be at a scale of 3/4"=1'-0". You will need to pan the drawing so that the foundation will be approximately in the center of the viewport.

TASK 10 Move to the right viewport and zoom in on the wall section. Zoom again so that when plotted the wall section will be 1 1/2"=1'-0". Pan the drawing to a suitable location in the viewport.

TASK 11 Move to paperspace. Make a new layer named "pstext" and make it the current layer. Change the layer color to "cyan".

TASK 12 In the lower right corner of the upper left viewport type the following note at a height of .125".

FOUNDATION PLAN
SCALE: 1/8"=1'-0"

If necessary move the note to a desirable location.

TASK 13 In the lower right corner of the lower left viewport type the following note at a height of .125".

FOUNDATION DETAILS
SCALE: 3/4"=1'-0"

TASK 14 Above the titleblock type the following note at a height of .125".

TYPICAL WALL SECTION
SCALE: 1 1/2"=1'-0"

TASK 15 In the title block make the title of the drawing "DETAIL SHEET" and change the x.xx in the scale box to read "AS NOTED" at a height of .1"

TASK 16 Turn layer "PSVPORTS" off.

TASK 17 Set dimscale to the proper setting for plotting.

TASK 18 Save the drawing as **MSTOPS1**.

TASK 19 Exit the drawing editor and AutoCAD.

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CONVERTING MODLESPACE TO PAPERSPACE

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #19

Competency: Converting from Modelspace to Paperspace.

Performance Objective: The student will be able to convert a drawing from modelspace to paperspace achieving 100% mastery of the performance exam.

1) Maximum time for the exam is 30 minutes.

2) There are nineteen tasks that the student must perform.

    1) Enter the AutoCAD drawing editor by editing and existing drawing.
    2) Using the "vports" command to split the screen into three parts.
    3) Enter paperspace.
    4) Create viewports with the "mview" command.
    5) Use the zoom all command.
    6) Create a layer named "psvports".
    7) Insert a titleblock drawing into the existing drawing.
    8) Return to modelspace and scale a viewport to 1/96xp.
    9) Move to a viewport and scale it to 1/16xp.
    10) Move to a viewport and scale it to 1/8xp.
    11) Return to paperspace and make a new layer named "pstext" whose color is cyan.
    12) 13,14. Use the "text" or "dtext" command to type a note.
    15) Modify notes in the titleblock.
    16) Turn a layer off.
    17) Set the dimscale to 0.
    18) Save the drawing.
    19) Exit the drawing editor and AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette
Calculator (optional)

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION ON VIEWPORTS

You will also need the following files during the exam.

MSTOPS.DWG

TASK 1 Enter the AutoCAD Drawing Editor by editing an existing drawing named **MSTOPS.**

TASK 2 Type the proper command or use the side menu to split the drawing into three viewing areas with the vertical being on the right side.

TASK 3 Set the tilemode to enter paperspace.

TASK 4 While in paperspace, insert three modelspace viewports with the vertical being on the right side. The first point is at 0,0 and the upper right is at 34,22.

TASK 5 Zoom all.

TASK 6 Create a new layer named **"psvports"** and change the paperspace viewports in this layer.

TASK 7 Insert drawing **"TBD"** into the drawing. The insertion point is at 0,0.

TASK 8 Move to modelspace and zoom the upper left viewing screen so that when plotted it will be at a scale of 1/8"=1'-0". You will need to pan the drawing so that the foundation plan will be approximately in the center of the viewport.

TASK 9 Move to the lower left viewport and zoom in on the foundation details. Zoom again so that when plotted it will be at a scale of 3/4"=1'-0". You will need to pan the drawing so that the foundation will be approximately in the center of the viewport.

TASK 10 Move to the right viewport and zoom in on the wall section. Zoom again so that when plotted the wall section will be 1 1/2"=1'-0". Pan the drawing to a suitable location in the viewport.

TASK 11 Move to paperspace. Make a new layer named "pstext" and make it the current layer. Change the layer color to "cyan".

TASK 12 In the lower right corner of the upper left viewport type the following note at a height of .125".

FOUNDATION PLAN
SCALE: 1/8"=1'-0"

If necessary move the note to a desirable location.

TASK 13 In the lower right corner of the lower left viewport type the following note at a height of .125".

FOUNDATION DETAILS
SCALE: 3/4"=1'-0"

TASK 14 Above the titleblock type the following note at a height of .125".

TYPICAL WALL SECTION
SCALE: 1 1/2"=1'-0"

TASK 15 In the title block make the title of the drawing "DETAIL SHEET" and change the xxxx in the scale box to read "AS NOTED" at a height of .1"

TASK 16 Turn layer "PSVPORTS" off.

TASK 17 Set dimscale to the proper setting for plotting.

TASK 18 Save the drawing as **MSTOPS1**.

TASK 19 Exit the drawing editor and AutoCAD.

COMPETENCY EXAMINATION RATING SHEET

Competency: Converting from Modelspace to Paperspace.

Performance Objective: The student will be able to convert a drawing from modelspace to paperspace, achieving 100% mastery of the performance exam.

STUDENT ____________________ **Competency Mastered YES** ____ **NO** ____

EXAMINER ____________________ **Date of Rating** ____________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor by editing drawing.			
2. Demonstrated ability to enter the "Vports" command and split the screen into three viewing areas.			
3. Set the tilemode to 0.			
4. Created three viewports in paperspace using the "mview" command.			
5. Zoomed all.			
6. Created layer named "psvports" and placed the paperspace viewports in this layer.			
7. Inserted "TBD" into drawing.			
8. Moved to modelspace with the "MS" command and zoomed upper left viewport to 1/96xp (1/8"=1'-0").			
9. Moved to lower left viewport and zoomed 1/16xp (3/4"=1-0).			
10. Moved to right viewport and zoomed 1/8xp (1 1/2"=1'-0").			
11. Returned to paperspace with the "PS" command and made a new layer "pstest" whose color is cyan. It is the current layer.			

Comments:

(CONTINUED)
COMPETENCY EXAMINATION RATING SHEET

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
12. Used the "text" or "dtext" command to add the following note to the lower left corner of the upper right viewport. The note is .125" high. FOUNDATION PLAN SCALE: 1/8"=1'-0"			
13. Used the "text" or "dtext" command to add the following note to the lower right corner of the lower left viewport. The note is .125" high. FOUNDATION DETAILS SCALE: 3/4"=1'-0"			
14. Used the "text" or "dtext" command to add the following note to the viewport above the titleblock. The note is .125" high. TYPICAL WALL SECTION SCALE: 1 1/2"1'-0"			
15. Changed the title block so that the title of the drawing is "DETAIL SHEET" and the scale is "AS NOTED". The scale note will have to be changed to .1" high so that it will fit.			
16. Turned layer "PSVPORTS" off.			
17. Set the dimscale to 0.			
18. Saved the drawing as MSTOPS1.			
19. Exit the drawing editor and AutoCAD.			

Comments:

STUDENT MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING A 3D WIREFRAME DRAWING AND ADDING 3D FACES

DRAFTING--RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE STUDENT

PERFORMANCE EXAMINATION #20

Competency: Creating a 3D Wireframe Drawing and Adding 3D Faces.

Performance Objective: The student will be able to draw from orthographic drawings a 3D wire frame model and add 3d faces to it, achieving 100% mastery of the performance exam.

1) The exam consists of eleven tasks. You will be rated for your ability to draw a 3D wireframe drawing and add 3D faces to it.

2) For each job you will be rated on your ability to perform skills necessary for CAD Drafters according to standard procedure.

3) Time allowed: 1.5 hours

4) Upon completion of the exam, return the workstation to the hard disk manager. Return all equipment and materials provided for this exam to their proper location when finished.

5) The student performance exam booklet, any scrap work sheets, and all work sheets must be turned in to the examiner and checked.

Facility:

Computer Assisted Design Lab

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ___________
Time finished: ___________

COMPETENCY EXAMINATION

CREATING A 3D WIREFRAME DRAWING AND ADDING 3D FACES

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by creating a new drawing named 3D.

TASK 2 Split the screen into four separate screens.

TASK 3 Using the proper AutoCAD command, pull-down menu or the side menu, set the upper left screen so that you will see the top view of the object while drawing in 3d.

TASK 4 Using the same command that was used in step 3, set the lower left screen so that you will see the front view of the object while drawing in 3d.

TASK 5 Set the lower right screen so that you will see the side view while drawing in 3d.

TASK 6 Set the upper right screen so that you have a 30 degree angle from the x,y plane.

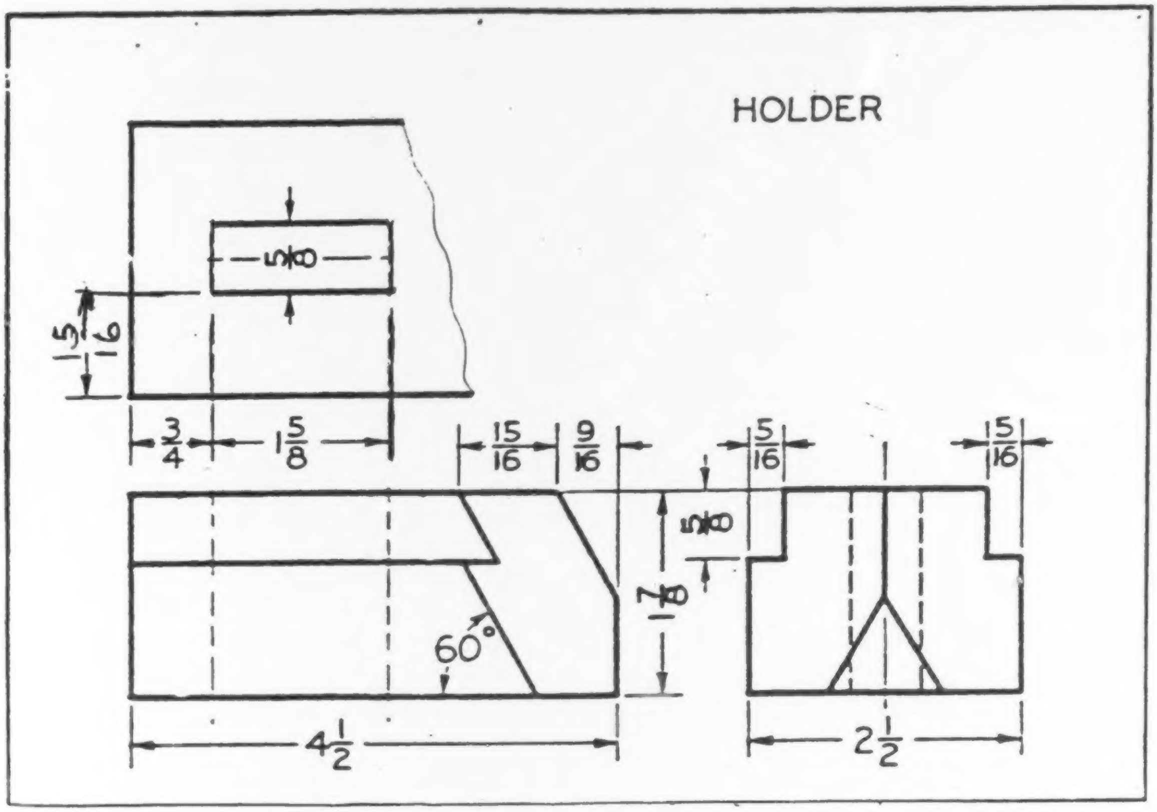
TASK 7 Draw the attached object in 3d. Feel free to switch viewports, move or copy, zoom in/out, or use any other AutoCAD command necessary to draw the object.

TASK 8 Create a layer named "FACES". Make the color red and make it the current layer.

TASK 9 Add 3d faces to **all** "faces" of the drawing.

TASK 10 Turn layer "faces" off and hide the drawing to see if all unwanted lines are hidden.

TASK 11 Save the drawing as 3d and exit the drawing editor and AutoCAD.


HOLDER
5/8
1 5/16
3/4
1 5/8
15/16
9/16
5/16
5/16
5/8
1 7/8
60°
4 1/2
2 1/2

EXAMINER MANUAL

COMPETENCY EXAMINATION

COMPETENCY:

CREATING A 3D WIREFRAME DRAWING AND ADDING 3D FACES

DRAFTING---RELATED OCCUPATIONS

SPECIFIC INSTRUCTIONS FOR THE EXAMINER

PERFORMANCE EXAMINATION #20

Competency: Creating a Wireframe Drawing and Adding 3D Faces.

Performance Objective: The student will be able to draw from orthographic drawings a 3D wire frame model and add 3d faces to it, achieving 100% mastery of the performance exam.

1) Maximum time for the test is 1.5 hours.

2) There are eleven tasks that the student must perform.

    1) Enter the AutoCAD drawing editor by creating a new drawing.
    2) Split the screen into four parts.
    3) Set the upper left viewport to the top view.
    4) Set the lower left viewport to the front view.
    5) Set the lower right viewport to the right side view.
    6) Set the upper right viewport to the 3d view 30 degrees from the X,Y plane.
    7) Draw a 3D wireframe.
    8) Create a layer, change its color, and make it the current layer.
    9) Add 3D faces to all faces on the drawing.
    10) Turn off a layer and hide the drawing.
    11) Save the drawing and exit AutoCAD.

3) All ratings should be made on individual students competency rating sheet.

4) Upon completion of the exam, verify that all testing materials are in your possession.

Facility:

Computer Assisted Design Laboratory

Materials Needed:

1 pen or pencil
paper
3 1/2 or 5 1/4 high density diskette

Time started: ____________
Time finished: ____________

COMPETENCY EXAMINATION

CREATING A 3D WIREFRAME DRAWING AND ADDING 3D FACES

PERFORMANCE EXAM:

TASK 1 Enter the AutoCAD Drawing Editor by creating a new drawing named 3D.

TASK 2 Split the screen into four separate screens.

TASK 3 Using the proper AutoCAD command, pull-down menu or the side menu, set the upper left screen so that you will see the top view of the object while drawing in 3d.

TASK 4 Using the same command that was used in step 3, set the lower left screen so that you will see the front view of the object while drawing in 3d.

TASK 5 Set the lower right screen so that you will see the side view while drawing in 3d.

TASK 6 Set the upper right screen so that you have a 30 degree angle from the x,y plane.

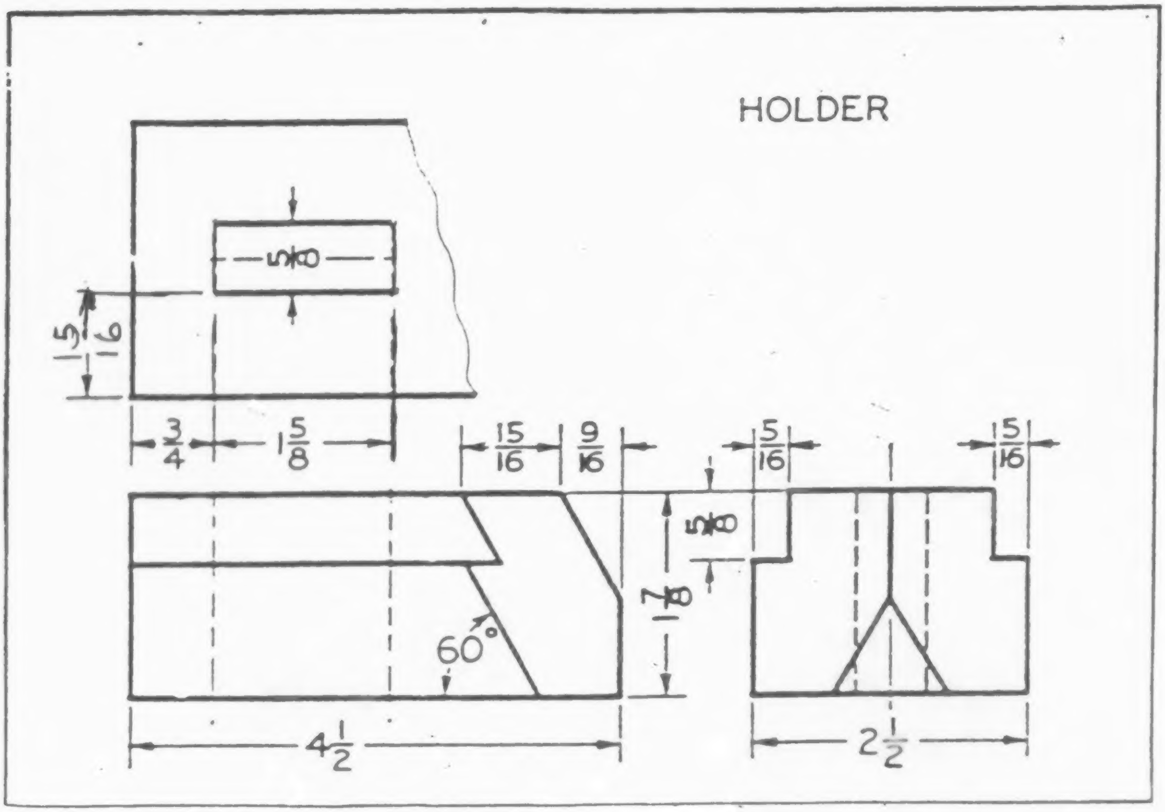
TASK 7 Draw the attached object in 3d. Feel free to switch viewports, move or copy, zoom in/out, or use any other AutoCAD command necessary to draw the object.

TASK 8 Create a layer named "FACES". Make the color red and make it the current layer.

TASK 9 Add 3d faces to all "faces" of the drawing.

TASK 10 Turn layer "faces" off and hide the drawing to see if all unwanted lines are hidden.

TASK 11 Save the drawing as 3d and exit the drawing editor and AutoCAD.


HOLDER
5/8
15/16
3/4
1 5/8
15/16
9/16
5/16
5/16
5/8
1 7/8
60°
4 1/2
2 1/2

COMPETENCY EXAMINATION RATING SHEET

Competency: Creating a Wireframe Drawing and Adding 3D Faces.

Performance Objective: The student will be able to draw from orthographic drawings a 3D wire frame model and add 3d faces to it, achieving 100% mastery of the performance exam.

STUDENT ______________________ Competency Mastered YES ____ NO ____

EXAMINER ______________________ Date of Rating ______________________

PERFORMANCE CRITERIA	STUDENT PERFORMANCE		
	Satisfactory	No. of Attempts	Completion Date
1. Demonstrated ability to enter the AutoCAD editor by creating a new drawing.			
2. Demonstrated ability to enter the "Vports" command and split the screen into four viewing areas.			
3. Used the "vpoint" command, to set the upper left viewport to show the top of the object when drawing.			
4. Used the "vpoint" command, to set the lower left viewport to show the front of the object when drawing.			
5. Used the "vpoint" command, to set the lower right viewport to show the right side view when drawing.			
6. Used the "vpoint" command, to set the upper right viewport to 30 degree from the x, y plane.			
7. Made a 3d wireframe drawing.			
8. Create a new layer named "FACES". Its color is read. It is also the current layer.			
9. Add 3D faces to all faces in the drawing.			
10. Turned layer "FACES" off and used the hide command to view the object.			
11. Saved the drawing, exited the drawing editor and AutoCAD.			

Comments: